

# **FINANCIAL STABILITY REPORT**

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CENTRAL BANK OF THE REPUBLIC OF TURKEY

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This report, aimed at informing the public, is based mainly on March 2022 data. Nevertheless, the Report includes developments and evaluations up to its date of publication in Turkish version. The full text is available on the CBRT website. The CBRT cannot be held accountable for any decisions taken based on the information and data provided therein.

## Foreword

Since the last issue of the Financial Stability Report, economic activity has remained strong, and external demand has continued to contribute to growth despite the negative economic repercussions of geopolitical developments. Notwithstanding the brisk export performance and the recovery in the tourism sector, the rise in global commodity prices and increasing volatility retard the improvement in the current account deficit.

Turkish corporate sector's indebtedness ratio diverges positively from peer countries. While the positive outlook in profitability, indebtedness and FX position indicators of corporate sector has been sustained, companies maintain their capacities to renew external debts by more than 100 percent. The household indebtedness ratio continues to be below the average of peer countries. The financial resilience indicators of corporate sector and households have also maintained their overall improvement trends since the previous reporting period.

The recent acceleration in loan growth has been driven by TL commercial loans, which also strengthened due to the working capital requirement as a result of rising input costs. Retail loan growth has followed a moderate course on the back of macroprudential measures introduced last year. The impacts of the macroprudential policy framework, which has been strengthened to ensure that the loan growth and financing sources serve their intended purpose in economic activity, are closely monitored. Additional measures will continue to be taken in order to ensure that loans grow in line with financial stability and accommodate economic activity in a healthy way. The positive outlook in the banking sector's asset quality, liquidity, profitability, and capital adequacy indicators preserved.

The CBRT will continue to use all available instruments decisively until strong indicators point to a permanent fall in inflation in pursuit of the primary objective of price stability, and until the aim of sustainable financial stability within the framework of "Liraization" is achieved. An important focus of the recently introduced measures is to ensure permanent liraization of the financial system with all its assets and liabilities in order to re-establish price stability in a sustainable framework.

Permanent stability in the general price level will foster macroeconomic stability and financial stability through the fall in country risk premium, continuation of the reversal in currency substitution and the upward trend in foreign exchange reserves, and durable decline in financing costs. This would create a viable foundation for investment, production and employment to continue growing in a healthy and sustainable way.

In this context, I hope that the 34th volume of the Financial Stability Report, which includes the current state and outlook for financial stability as well as external and domestic macroeconomic developments, will be of benefit to all readers.

Prof. Şahap KAVCIOĞLU

Governor

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## I. Overview

**The Russia-Ukraine conflict and China's lockdown measures against increasing number of cases pose downside risks to global economic activity.** High inflation persists on a global scale due to increasing uncertainties regarding global food security, the high level of commodity prices and transportation costs. Geopolitical tensions, international sanctions and protectionist trade policies increase the uncertainties over commodity prices. Expectations on monetary policy steps of major central banks, as well as geopolitical developments, cause fluctuations in portfolio flows towards emerging economies. The global financial indebtedness, which increased significantly during the pandemic, began to decrease from the first quarter of 2021.

**Having remained robust throughout 2021 with the contribution of domestic and external demand, economic activity also maintained this course in the first quarter of 2022.** In the last quarter of 2021, the main determinant of growth was final domestic demand led by private consumption, and the contribution of net exports to growth continued.

**The household indebtedness has been on a decline since the third quarter of 2020 on the back of robust economic activity, and is considerably below those of the EME average.** Meanwhile, the fact that household borrowing is increasingly made by fixed-income earners support financial stability by providing predictable cash flows. The increasing trend in household financial assets continues in tandem with the strong growth observed in deposits and non-deposit financial assets. In this period, the demand of households for non-deposit TL financial assets such as equities and mutual funds is also noteworthy. These trends stand out with their features that reinforce financial deepening.

**The corporate sector's ratio of financial liabilities to financial assets is still moderate, while liquidity, profitability and debt payment indicators of corporates continue to improve at a faster rate.** The increase in costs caused by higher commodity and energy prices besides rising exchange rates has driven up financing needs for working capital and consequently financial liabilities of corporates. Firm assets, on the other hand, have been positively affected by the increase in exchange rates, while increased turnover amid strong economic activity has bolstered assets. The corporate sector continued to decrease its domestic FX loans and maintained its tendency to reduce its FX risk, while the share of TL in total loans continued to increase. Corporates' access to funds from abroad remained strong, and external debts have been rolled over at more than 100%. Exchange rate developments, rising production costs and inflationary pressures in the last quarter of 2021 caused corporates to hold more liquid assets, but brought their profitability down moderately. In the first quarter of 2022, liquid assets and cash ratios were slightly down due to a lower exchange rate, but corporate sector profitability increased thanks to strong economic activity, buoyant exports and inventory revaluations. After rising on the back of the exchange rate-driven increase in financing expenses in the last quarter of 2021, the financial expense coverage ratio of corporates improved in the first quarter of 2022 with strong profitability.

**The accelerating loan growth in 2022 is mainly driven by TL commercial loans.** Retail loan growth, on the other hand, follows a more moderate course compared to commercial loans thanks to macroprudential instruments introduced in 2021 and higher interest rates. Also, the inflation adjusted loan utilizations indicate that commercial loans have grown faster than their long-term trend while retail loans have grown at a pace similar to their long-term trend. Although factors such as increasing working capital needs due to rising commodity prices and increase in stock financing are also considered to be effective in TL commercial loan growth; it is of great importance that loans meet economic activity in a way that supports investment, exports and potential growth. The additional macroprudential measures taken are also expected to provide a supportive contribution in this direction.

**The effects of the strengthened macroprudential framework to ensure that corporate loans meet economic activity in line with their intended purposes are closely monitored.** TL and long term loan allocations, made in line with the target of sustainable price stability, and in a way that support the current account balance, and increase the efficiency and the potential production, are important elements of the liraization strategy decisively pursued by the CBRT. With the announcement of 23 April 2022, the required reserve ratios for TL loans were increased in proportion to the growth in TL loans extended to companies excluding agricultural loans, SME loans, export and investment loans. In addition, with the announcement

on 28 April 2022, the BRSA increased the risk weights of TL commercial loans. Long-term investments, efficient production areas and import substitution activities will be encouraged with the advance loans against investment commitment, which will be financed from the CBRT resources, and it will be ensured that the loans are used in accordance with their purpose without harming price stability and financial stability.

**The asset quality outlook for the banking sector remains strong.** The total NPL ratio decreased due to the rapid increase in TL lending and the exchange rate-driven growth of loan balances, while the expiry of the loan classification flexibility had limited impact on NPL ratios. The ratio of NPL collections to NPL additions remains strong. Migrations to Stage 2 loans and NPLs are less likely than in the pre-pandemic period, and banks' continued prudence for provisioning limits asset-quality risks. A significant portion of Stage 2 loans consists of loans that are not in default, and banks monitor these prudently restructured loans under the Stage 2 category.

**The favorable outlook in banks' short and long-term liquidity indicators continues, and the sector has strong liquidity buffers against liquidity shocks.** In addition to the already high FX liquidity of banks, the strong increase in TL liquid assets on the back of the contribution of the KKM (FX-protected deposit) scheme further supported the sector's general liquidity. In this period, banks' external borrowing costs increased due to the tightening in global financial conditions and geopolitical developments. Despite rising costs, more than 100% of due syndicated loans have been renewed implying that banks maintain their ability to access foreign funding. While banks have strong FX liquidity buffers against liquidity shocks, short-term FX external debt is at a level that can be covered by FX liquid assets including FX swap receivables.

**The maturity mismatch between the sector's TL-denominated and FX-denominated assets and liabilities on banks' balance sheets has significantly improved.** With the contribution of the FX-protected deposit instrument, the average maturity of liabilities has extended, maturities of fixed-rate loans have become shorter, and the share of variable-rate loans and securities in assets has increased which altogether positively affect the maturity mismatch between interest-sensitive assets and liabilities. In the current report period, under an interest rate shock scenario, there are no banks that are likely to incur an equity loss more than 10%. Meanwhile, the banking sector's FX long position continues to provide protection against exchange rate shocks. With the contribution of FX-protected deposit instruments to the liraization of balance sheets, the number of banks holding an FX long position increased.

**The profitability of the banking sector, which has been recovering since the second half of 2021, continued to increase in the last two quarters in a stronger manner across the sector.** In the first quarter of 2022, the sector's profitability points to a return on equity over 30% on an annual basis. The high net interest income in the first quarter of the year and the decrease in loan provision costs compared to the previous period played an important role in the increase in profitability. The rise in net interest income, on the other hand, was driven by the increase in core margin, loan growth stemming from TL commercial loans, and the contribution of CPI-indexed securities. The improvement in the sector's profitability supports capital adequacy via the equity channel.

**Banks maintain their strong capital structures against possible risks.** The capital adequacy ratios (CAR) of the banking sector, which are currently above legal limits, remain so even when adjusted for regulatory effects. Turkish banks have additional capital above regulatory capital buffers. Capital buffers are important for banks to meet unexpected losses and to provide the financing needed by the economy in times of stress.

## II. Macroeconomic Outlook

**Geopolitical tensions and China's tightened pandemic measures against the increasing number of new cases pose a downside risk to global economic activity.** The Russia-Ukraine conflict, sanctions, and protectionist trade policies add to the uncertainty surrounding commodity prices. Inflation continues to rise globally due to the strong pent-up demand fueled by the waning pandemic, concerns over global food supply, and the increase in commodity prices and transportation costs. Portfolio flows to emerging economies (EMEs) fluctuate due to monetary policies of the Fed and other major central banks and expectations for them. The global economic recovery and high inflation of 2021 have driven household, real sector and financial sector debts lower since the first quarter of 2021.

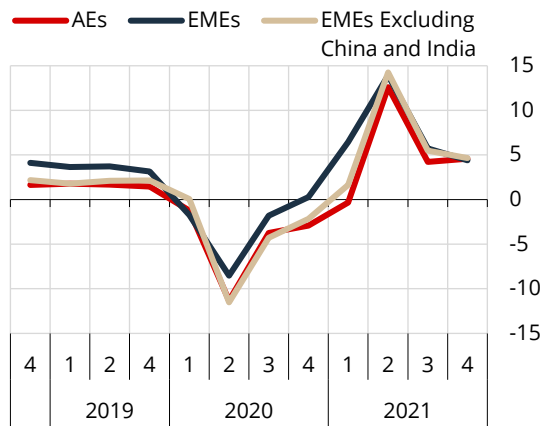
**Domestic economic activity remains strong as of the first quarter of 2022.** The contribution of net exports to this course continued. Despite the buoyant external demand and recovering services revenues, the current account deficit increased in annual terms due to higher global commodity prices and was mostly financed by private sector borrowing. The labor market and budget indicators also improved thanks to the strong economic activity. The inflation outlook is mostly affected by supply-side factors and demand developments, while core inflation indicators recorded slower monthly increases in the first four months of 2022.

## II.1 International Developments

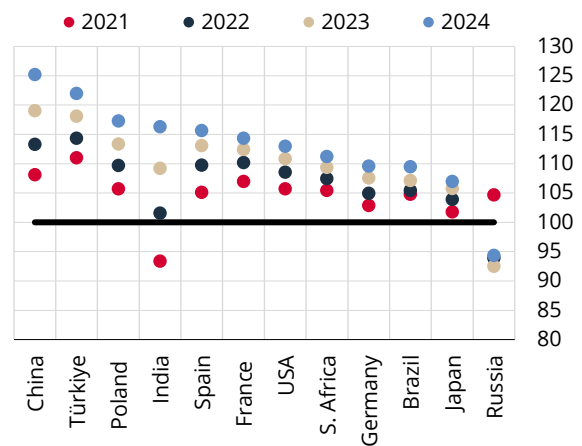
**The Russia-Ukraine conflict and China's coronavirus measures put downward pressure on global economic activity after it followed a strong course in 2021 thanks to the easing of lockdown measures, faster vaccination and accommodative economic policies.**

Global growth rates reached around 15% in the second quarter of 2021 due to base effects and a faster vaccine rollout, while AEs and EMEs grew by about 5% in the last quarter amid buoyant economic activity (Chart II.1.1). However, the quarantine measures taken against the increasing number of new cases in China as well as supply chain disruptions, the Russia-Ukraine conflict and economic and financial sanctions against Russia caused heightened uncertainty for the global growth outlook and financial markets. Supply chain disruptions, rising commodity and food prices due to the conflict together with the effects of inflationary pressures on monetary policies, caused growth rates of AEs and EMEs to diverge (Chart II.1.2).

**Chart II.1.1: Annual Growth in Advanced and Emerging Economies (%)**



**Chart II.1.2: Real GDP and Projections (Annual, 2020=100)**



Sources: Bloomberg, CBRT

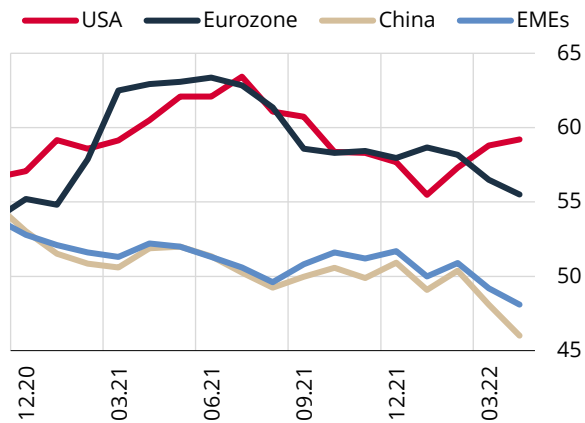
Last Observation: 2021Q4

Sources: Bloomberg, CBRT

Last Observation: 17.05.22

Note: On the chart to the left, AEs include the US, the euro area, Japan, the UK, Canada, S. Korea, Switzerland, Sweden, Norway, Denmark and Israel while EMEs are China, Brazil, India, Mexico, Russia, Türkiye, Poland, Indonesia, S. Africa, Argentina, Thailand, Malaysia, Czech Republic, Colombia, Hungary, Romania, the Philippines, Ukraine, Chile, Peru and Morocco.

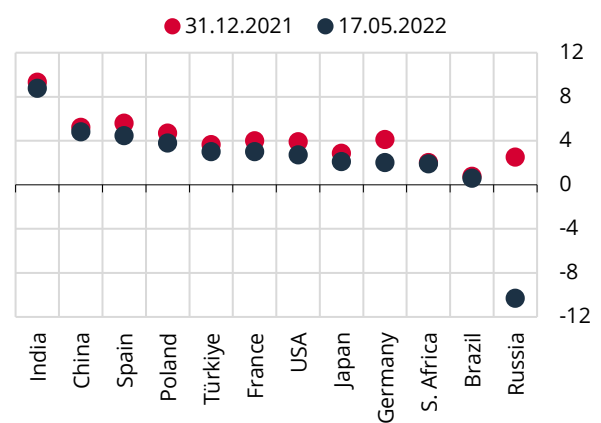
**Chart II.1.3: Manufacturing PMI (Index)**



Source: Bloomberg

Last Observation: 04.22

**Chart II.1.4: Growth Forecasts for 2022 (%)**



Source: Bloomberg

Last Observation: 17.05.22

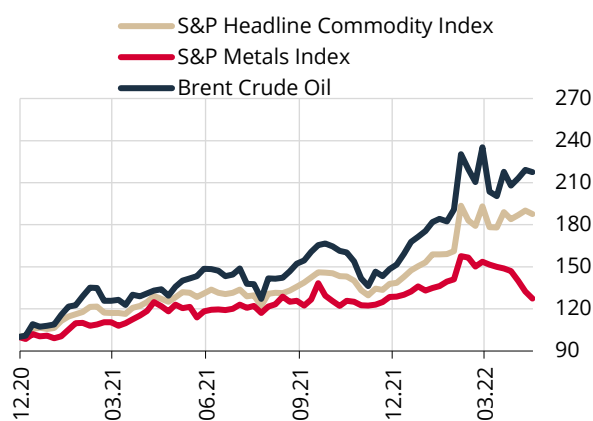


Leading indicators for growth point out that global economic recovery started to slowdown in the second quarter of 2022 due to geopolitical tensions and China's quarantine measures (Chart II.1.3). Following Russia's military operation in Ukraine, higher commodity prices, especially for oil and natural gas, and tighter supply conditions play a role in the downward revision of growth forecasts (Chart II.1.4).

### The ongoing increase in commodity prices amid the Russia-Ukraine conflict causes inflation to remain elevated around the globe.

The increase in prices of commodities such as oil, energy, wheat, metals and semiconductors since the beginning of COVID-19 gained momentum with the conflict, and the metal index fell amid fears of an economic slowdown in China after renewed pandemic measures (Chart II.1.5). Geopolitical tensions, sanctions and protectionist trade policies add to the uncertainty surrounding commodity prices. The global economy entered 2022 with higher-than-expected and widespread inflation due to the strong pent-up demand fueled by the waning pandemic in 2021, concerns over global food security, elevated commodity prices, supply constraints in some sectors, especially energy, and high transportation costs (Chart II.1.6). This has become a source of concern for many countries that are already suffering inflationary pressures, resulting in increased inflation expectations in EMEs and AEs.

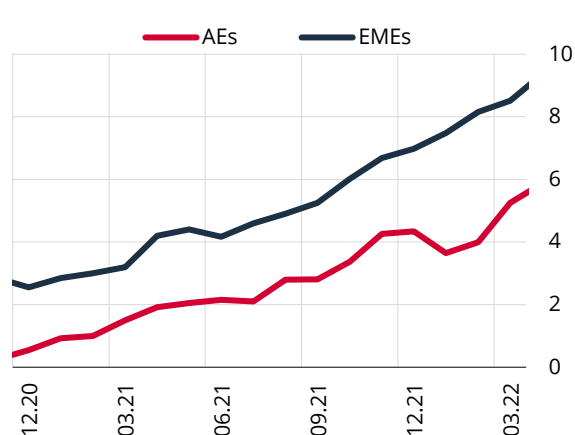
**Chart II.1.5: Commodity Indices** (Index, 25.12.2020=100)



Source: Bloomberg

Last Observation: 13.05.22

**Chart II.1.6: Global Inflation (%)**



Source: Bloomberg

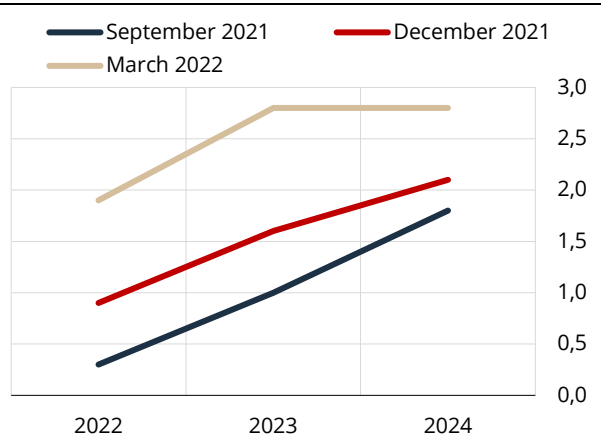
Last Observation: 04.22

Note: On the right chart, AEs include the US, the euro area, Japan, the UK, Canada, S. Korea, Switzerland, Sweden, Norway and Israel while EMEs are Brazil, Mexico, Russia, Poland, Indonesia, S. Africa, Thailand, Czechia, Colombia, Hungary, Romania and the Philippines.

### The policy steps taken by AEs central banks since the last quarter of 2021 indicate that global financial conditions have started to tighten.

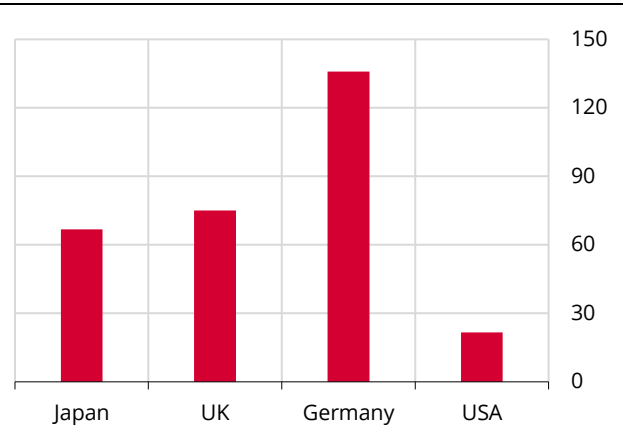
The Federal Reserve (Fed) Federal Open Market Operations Committee (FOMC) removed the reference to "transitory" inflation in its December 2021 announcement and stated that it would take concrete steps towards tightening in the future. In fact, the FOMC decided to hike the benchmark policy rate by 25 basis points at its March meeting and by 50 basis points at its May meeting in view of the fall in unemployment and the rise in inflation. Moreover, after having revised their policy rate projections upwards at the December meeting, the FOMC members struck a much more hawkish tone in March (Chart II.1.7). At its May meeting, the Fed announced that it planned to start shrinking its balance sheet as of 1 June. The European Central Bank (ECB) announced in December 2021 that it would gradually reduce its balance sheet. In March, the ECB decided that it would end net asset purchases within its Pandemic Emergency Purchase Program as of the end of March 2022. Under this program, the ECB may continue to reinvest in maturing assets until the end of 2024 at the earliest, in line with its monetary policy stance. Having kept policy rates unchanged, the ECB decided to gradually reduce asset purchases at its April meeting and affirmed for stronger expectations to end asset purchases in the third quarter. At its monetary policy meeting in May, the Bank of England hiked the policy rate by 25 basis points. The Bank of Japan, on the other hand, left its current monetary policy stance unchanged at its April meeting. According to indicators for breakeven inflation, markets expect inflation to rise further in selected AEs (Chart II.1.8).

**Chart II.1.7: Median Policy Rate Forecasts of FOMC Members (%)**



Source: Bloomberg Last Observation: 03.22

**Chart II.1.8: Change in Inflation Expectations (31 December 2021 to 17 May 2022, bps)**



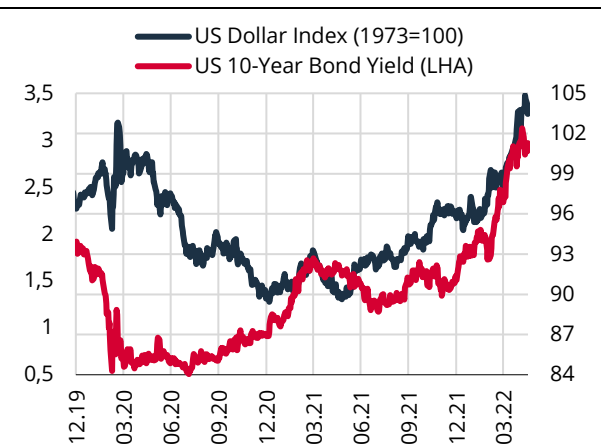
Source: Bloomberg Last Observation: 17.05.22

Note: The breakeven inflation rate is calculated by subtracting the yield of an inflation-indexed bond from the yield of a 5-year Treasury bond.

**Portfolio flows to EMEs have been volatile due to monetary policy actions of the Fed and other major central banks.**

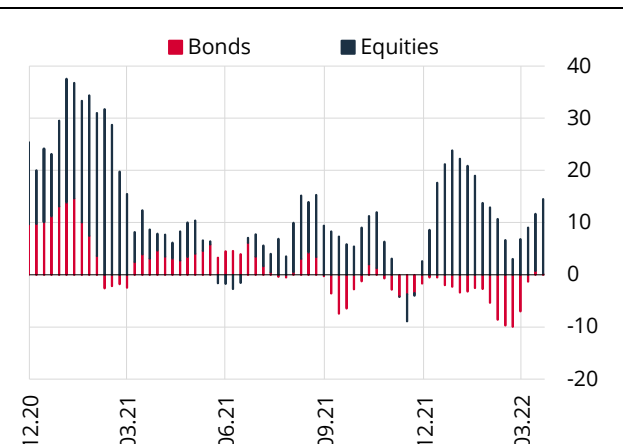
US long-term bond yields have been on an upward trend since the last quarter of 2021 due to the Fed's decision to hike the benchmark rate (Chart II.1.9). In addition, capital flows to EMEs remained under pressure due to concerns over global inflation in the last quarter of 2021 and mounting prospects of a tighter Fed policy, but stock markets have attracted some portfolio inflows with the increasing risk appetite since the beginning of 2022 (Chart II.1.10). Given the course of commodity prices, capital inflows may vary across commodity exporting and importing countries.

**Chart II.1.9: US Dollar Index and US 10-Year Bond Yield (Index, %)**



Source: Bloomberg Last Observation: 17.05.22

**Chart II.1.10: Weekly Capital Flows to EMEs (4-Week Cumulative, USD Billion)**



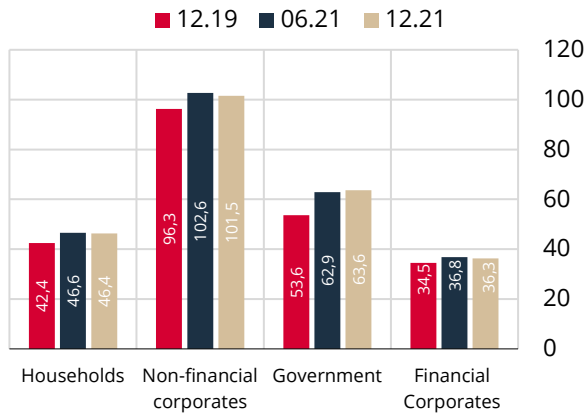
Source: EPFR Last Observation: 11.05.22

**After having increased significantly with the liquidity support provided in the early stages of COVID-19, global financial indebtedness has been on the fall since the first quarter of 2021.**

Although indebtedness in EMEs is higher than in the pre-pandemic period, household, real sector and financial sector indebtedness fell down due to the global economic recovery and high inflation of 2021 (Charts II.1.11 and II.1.12). On the other hand, the increase in interest rates around the world may cause the debt repayment capacity of the real sector to deteriorate, which could be more severe in sectors related to energy and agricultural products that are also grappling with supply problems. It is important for global

financial stability, to monitor the possible implications of the public debt, ramped up with the financial support provided mainly to the real sector through various channels during the pandemic, for bank balance sheets.

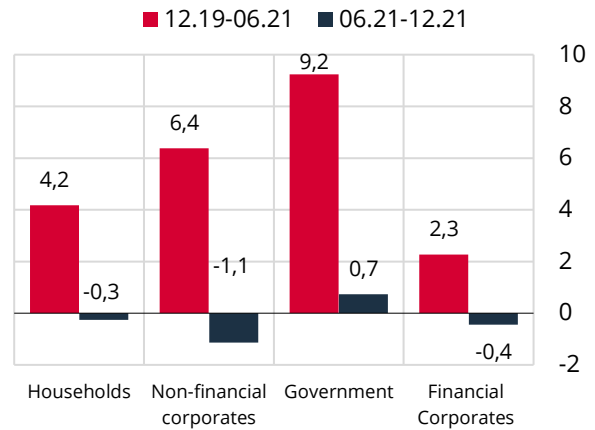
**Chart II.1.11: Financial Indebtedness in EMEs**  
(Debt/GDP, %)



Source: IIF Last Observation: 2021Q4

Note: The average is calculated based on GDP weights of countries. EMEs include Argentina, Brazil, Chile, China, Colombia, Czechia, Egypt, Ghana, Hong Kong, Hungary, India, Indonesia, Israel, Kenya, Lebanon, Malaysia, Mexico, Nigeria, Pakistan, the Philippines, Poland, Russia, Saudi Arabia, Singapore, S. Africa, S. Korea, Thailand, Türkiye, Ukraine and the United Arab Emirates. Data for the last two quarters of 2021 are estimations.

**Chart II.1.12: Change in Financial Indebtedness in EMEs (% Points)**

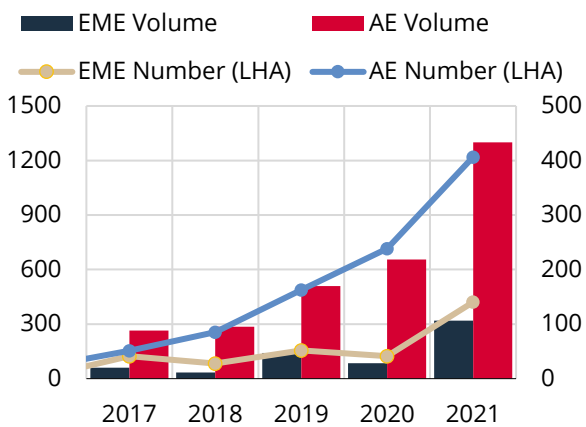


Source: IIF Last Observation: 2021Q4

**The increased awareness of the possible negative effects of climate change on the economic and financial system heightens the interest in green finance.**

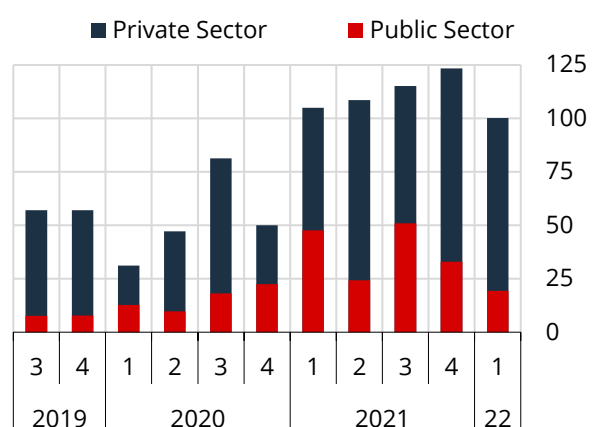
Green bonds issued in 2021 were significantly higher than in previous years in terms of volume and number (Chart II.1.13). The private sector issued more green bonds than the public sector as in previous years (Chart II.1.14). Both the physical risks associated with climate change and the increased interest in green finance give rise to the risk of "greenwashing", i.e. making false or misleading claims about environmental benefits of a product or service. Thus, it is important to build consistent global taxonomy for green finance and climate-related disclosure standards.

**Chart II.1.13: Total Volume and Number of Green Bonds Issued** (USD Billion, Units)



Source: Bloomberg Last Observation: 17.05.22

**Chart II.1.14: Breakdown of Green Bonds Issued** (USD Billion)



Source: Bloomberg Last Observation: 17.05.22

**The heightened uncertainty due to geopolitical risks added to vulnerabilities triggered by COVID-19 and related exit strategies, reduced risk appetite, inflationary pressures caused by the ongoing supply chain disruptions and rising commodity prices, and the resulting monetary policy actions of major central banks play a key role in the global financial system and the economic outlook.**

A liquidity squeeze in global markets and an increase in funding costs may cause financial conditions to tighten and hinder capital flows to EMEs. It is important that COVID-19 exit strategies are planned in a timely manner by taking the ongoing high debt burden, pressures on economic activity, and country-specific factors into account.

Against the backdrop of a clouded economic outlook, areas that should be carefully monitored in terms of global financial stability over the upcoming period include decentralized finance, which is an innovation in the financial system facilitated by digitalization, non-bank financial intermediation, climate-related financial risks, greenwashing risks, and cyber resilience.

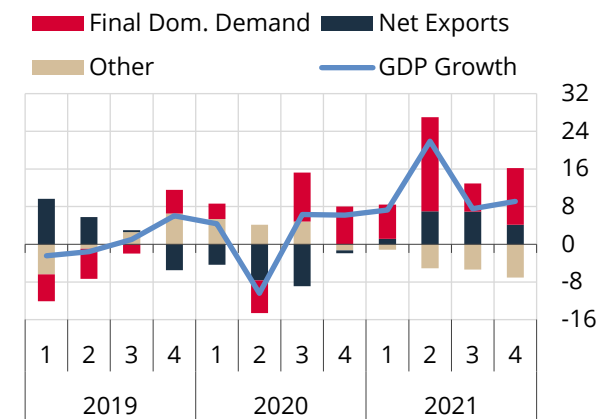
International financial institutions working on the effectiveness of the pandemic measures since its outbreak closely monitor the issues that pose a threat to financial stability in order to maintain the gains from the post-global financial crisis reforms. International cooperation and policy coordination are critical to preventing the Russia-Ukraine conflict and relevant sanctions from leading to market segmentation.

## II.2 Main Domestic Macroeconomic Developments

**Having followed a brisk course on account of the domestic and external demand across 2021, economic activity remained robust in the first quarter of 2022.**

GDP grew by 9.1% annually and 1.5% quarterly for seasonally adjusted data in the last quarter of 2021, when adjusted for seasonal and calendar effects. In this period, growth was mainly driven by final domestic demand led by private consumption, and the contribution of net exports to growth continued (Chart II.2.1). Thus, the annual growth rate was 11% in 2021. Leading indicators point out that economic activity remained brisk in the first quarter of 2022 thanks to external demand (Chart II.2.2). In January, industrial production fell on a monthly basis when adjusted for seasonal and calendar effects due to the negative impact of electricity and natural gas cuts in the last ten days of the month, yet its course in the subsequent months reveals that production remained strong. PMI and PUMAX indices indicate that the positive outlook in manufacturing industry production is partially preserved, while the recovery in services sectors is ongoing.

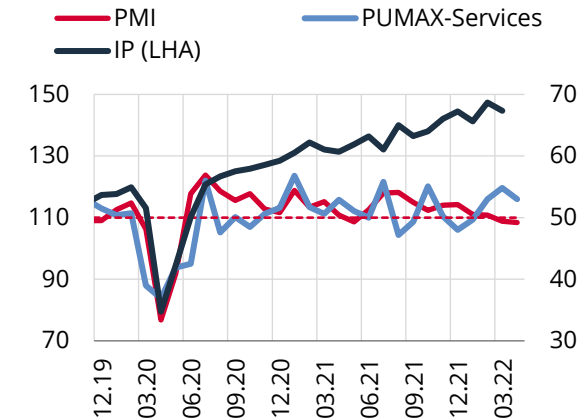
**Chart II.2.1: Annual GDP Growth and Contribution from the Expenditure Side (% Points)**



Source: TURKSTAT

Last Observation: 2021 Q4

**Chart II.2.2: Selected Leading Indicators of Economic Activity (Index)**

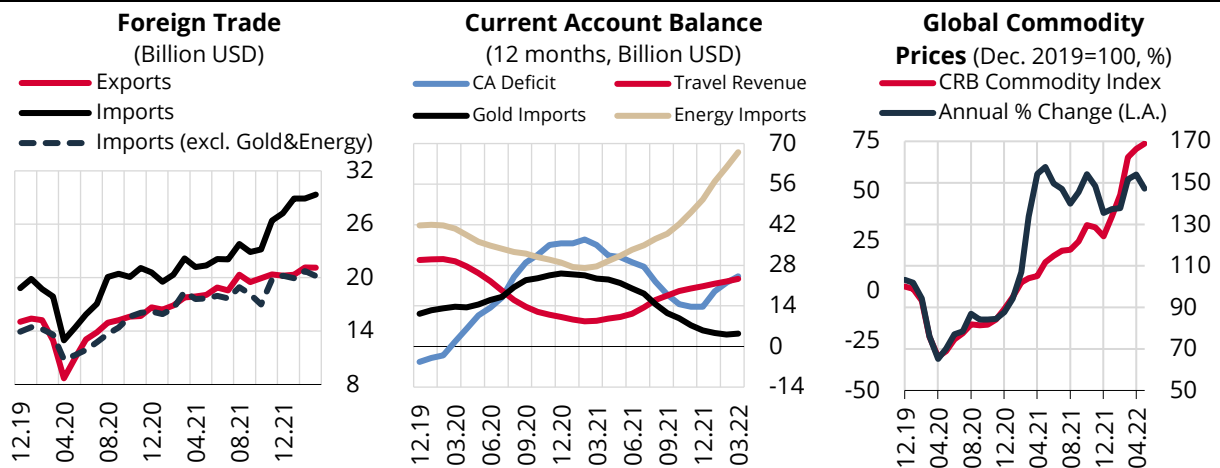


Source: CBRT, ISO, TURKSTAT, MUSIAD Last Obs.: 04.22

Note: Industrial Production Index (IPI, 2015=100) and the Services Sector Purchasing Managers' Index (PUMAX-Services) are adjusted for seasonal and calendar effects. The dashed line shows the stable state in the Manufacturing Industry Purchasing Managers' Index (PMI) and PUMAX indices compared to the previous month.

**The favorable course in foreign demand conditions and the recovery in services revenues support the current account balance, but the uptick in global commodity prices delays its improvement.**

Having been bolstered by the ongoing recovery in the global economy and the rise in export prices, exports remained on an upward track in the first quarter of 2022. Although the conflict between Russia and Ukraine inflicts regional losses in exports in the short term, exporting companies are able to compensate for these losses thanks to their market diversification flexibility. On the imports front, a significant increase was recorded due to the surge in commodity prices, which started in the last quarter of 2021 and persisted because of the heightened regional conflict. In fact, when gold and energy are excluded, imports move in tandem with exports. With the easing of pandemic measures and the spread of vaccination on a global scale, tourism and transportation revenues recovered further, and tourism revenues converged to pre-pandemic levels to some extent on an annualized basis. Against this background, after falling from USD 36.9 billion in February 2021 to USD 13.7 billion at the end of the year, the annualized current account deficit increased to USD 24.2 billion as of March 2022 due to energy imports (Chart II.2.3).

**Chart II.2.3: Current Account Developments**


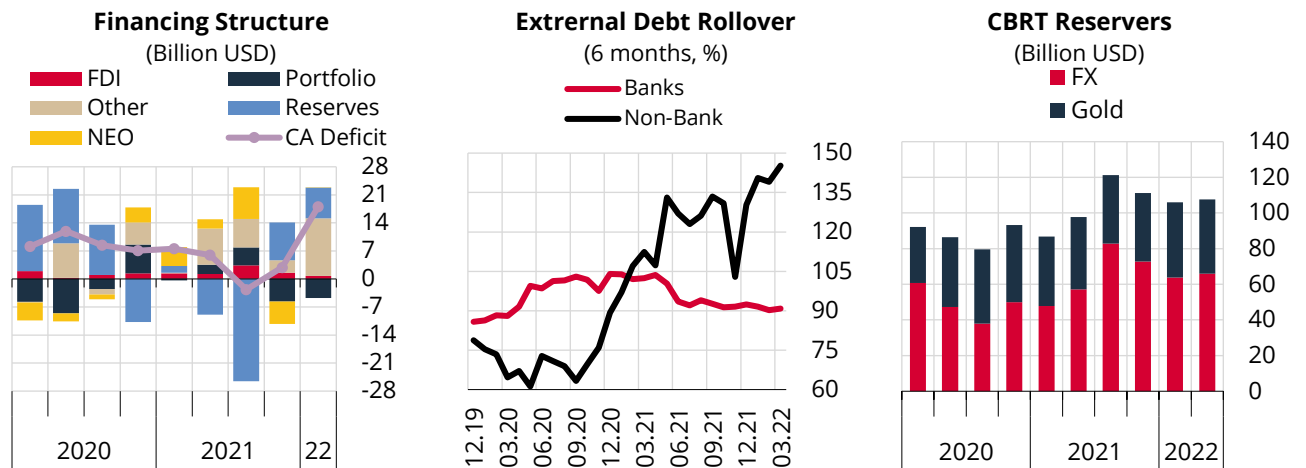
Source: CBRT, TURKSTAT, Ministry of Trade, Refinitiv

Last Observation: 03.2022; (Commodity Prices) 05.2022

Note: For foreign trade, seasonally adjusted and monthly exports (fob) and imports (cif) data according to the general trade system have been used. Commodity index (Refinitiv/CoreCommodity CRB Index) shows the arithmetic average of futures prices of 19 commodities such as crude oil, gold, copper, livestock and sugar.

**While the current account deficit has recently been financed by other investments, being mostly private sector borrowing, the private sector's external debt rollover ratios remain high.**

Since the last Report period, the financing need driven by the current account deficit has increased. While direct investments offered a limited contribution to financing in this period, portfolio flows tended to be outflows due to stocks and debt securities. The current account has been financed largely by other investments through the use of external borrowing in cash loans and commercial loans by the non-bank private sector. CBRT reserves, on the other hand, remained relatively flat in the first five months of 2022 and stood at USD 107.7 billion as of 6 May 2022 (Chart II.2.4).

**Chart II.2.4: Financing Developments in the Balance of Payments**


Source: CBRT

Last Observation: 03.22

Last Observation: 03.22

Last Observation: 06.05.22

Note: "FDI", "Portfolio" and "Other" investments items are in net terms. The (-) sign in "Reserves" implies an increase. External debt rollover ratios are calculated on short and long-term total debt in a 6-month window.

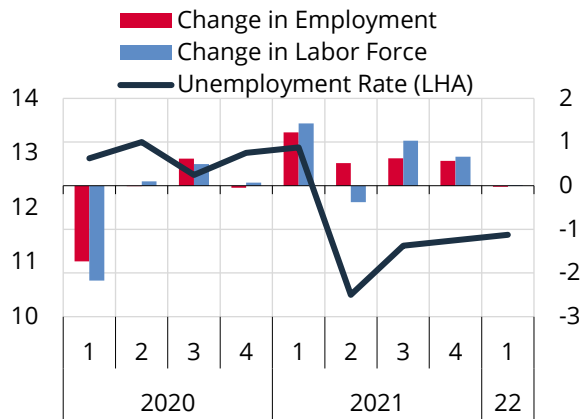
**The strong course of economic activity had positive repercussions on the labor market, and tax revenues maintained the upward trend.**

The seasonally-adjusted unemployment rate has been relatively flat since the last quarter of 2021 as a result of the stronger labor force growth compared to employment (Chart II.2.5). The robust course of economic activity also affects tax revenues positively. The proportion of primary expenditures covered by tax revenues, which receded due to the upsurge in public expenditures in the last quarter of 2021,

increased again in the first quarter of 2022 as the periodic growth in tax revenues exceeded primary expenditures. While current transfers drove primary expenditures higher, the contribution of capital expenses and other expenditures remained limited. Thus, the ratio of the budget deficit to national income, which rose to 3.8% on account of the pandemic measures, remains below 3% as of the first quarter of 2022 as it was in 2021 (Chart II.2.6).

### Chart II.2.5: Labor Market Indicators

(Seasonally-Adjusted, Million People, %)

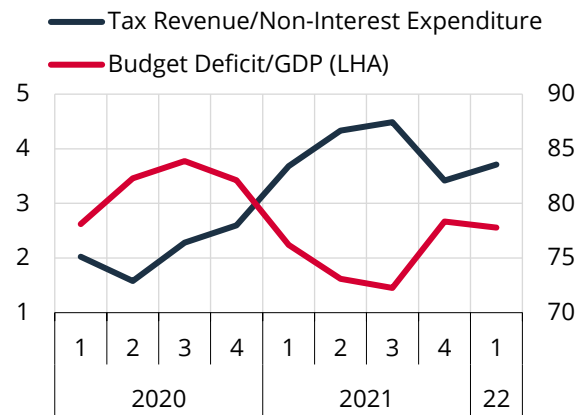


Source: TURKSTAT

Last Observation: 2022 Q1

### Chart II.2.6: Central Government Budget Indicators

(12-Month Cumulative, %)



Source: HMB

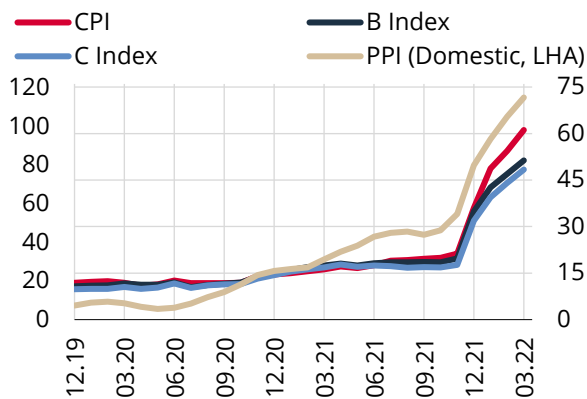
Last Observation: 2022 Q1

### The recent rise in inflation is attributed to supply-side factors and demand developments.

A significant increase has been observed in consumer inflation since December 2021. Elevated annual inflation figures in the food group and agricultural products stemmed mostly from the developments in international markets. Meanwhile, the rise in crude oil prices affected domestic fuel prices adversely, and crude oil prices accompanied by adjustments in electricity-natural gas-water prices became the drivers of the energy group. In tandem with this outlook, services inflation also increased (Chart II.2.7 and Chart II.2.8). In addition to the developments in international commodity markets, the ongoing supply problems have brought about hikes in producer prices.

### Chart II.2.7: Inflation Developments

(Annual % Change)



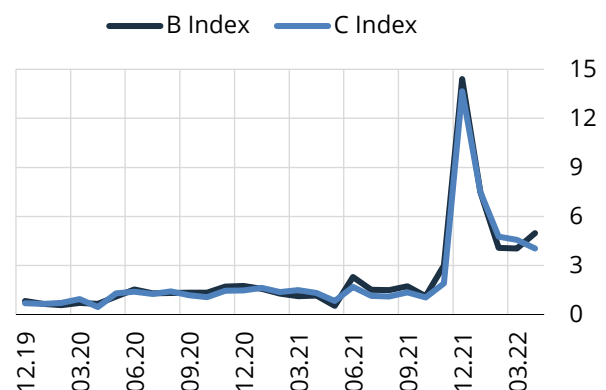
Source: TURKSTAT

Last Observation: 04.22

Note: The B index is obtained by subtracting unprocessed food products, energy, alcoholic beverages, tobacco and gold items from the CPI, and the C index is obtained by subtracting food and non-alcoholic beverages from the B index.

### Chart II.2.8: Core Inflation Developments

(Seasonally-Adjusted, Monthly % Change)



Source: CBRT, TURKSTAT

Last Observation: 04.22

## Box II.2.1

### Steps Taken Towards Effective Functioning of Financial Markets

A significant portion of the regulatory changes introduced in the current Report period consisted of steps taken within the scope of the "Liraization Strategy", which is based on structuring the financial system on Turkish lira instruments. The dollarization problem, which increases the sensitivity of inflation and pricing behavior to the exchange rate in a way that is incompatible with macroeconomic fundamentals, has been addressed so as to cover all economic factors. Meanwhile, structural steps that will strengthen the external balance of the economy by supporting production and exports in the medium term are also taken into consideration. Accordingly, measures and regulatory steps taken in the current reporting period to support financial stability and contribute to the effective functioning of markets are summarized in this box under main headings.

**Table II.2.1.1: Major Measures and Regulations for Financial Markets**

#### 1. Policy Rate and the CBRT's Liquidity Management

Effective Date	Measure / Regulation
01.12.2021	The CBRT started to conduct transactions at the Borsa Istanbul Derivatives Market (VIOP) due to unhealthy price formations in exchange rates.
01.12.2021	The CBRT directly intervened in the market by selling USD 7.28 billion from 1.12.2021 to 17.12.2021 due to unhealthy price formations in exchange rates.
16.12.2021	The one-week repo auction rate was reduced from 15 percent to 14 percent.
21.12.2021	To help exporting and importing companies to manage exchange rate risk, TL-settled foreign exchange forward sales were initiated at the CBRT via auctions and at the BIST Derivatives Market (VIOP).
27.12.2021	To reduce the share of FX collateral within the collateral for TL funding provided by the CBRT, banks were obliged to hold collateral in Government Domestic Debt Securities (GDDS) and/or the lease certificates issued domestically by HMKVŞ of at least 30 percent of the amount they borrowed in return for their borrowings in the IMM.
21.03.2022	The collateral FX deposit purchase rate was increased from 0 percent to 0.25 percent for all maturities for the US dollar. The FX deposit selling rates for the US dollar were increased from 2.50 percent to 2.75 percent for one-week maturity and from 3.25 percent to 3.50 percent for one-month maturity.
05.05.2022	The collateral FX deposit purchase rate was increased from 0.25 percent to 0.75 percent for all maturities for the US dollar. FX deposit selling rates for the US dollar were increased from 2.75 percent to 3.25 percent for one-week maturity and from 3.50 percent to 4.00 percent for one-month maturity.
27.05.2022	The weight of TL-denominated assets in the collateral system was increased. In this context, it was decided that at least 30 percent of the collateral blockage imposed on swap transactions should be GDDS or lease certificates issued domestically by HMKVŞ in TL; with no coupon, fixed coupon, floating rate and indexed to TLREF. The discount rate in collateral types in TL excluding GDDS was increased from 5 percent to 15 percent.

#### 2. Reserve Requirements (RR)

Effective Date (start date of the RR maintenance period)	Measure / Regulation
17.12.2021	Within the scope of the interest/remuneration rate to be applied to the TL-denominated RRs and the additional interest/remuneration to increase the share of TL in the total deposit/participation funds in the banking system, all the interest/remuneration rates were reduced by 100 bps.
07.01.2022	Within the scope of the Communiqué No. 2021/14 on Encouraging the Conversion to Turkish Lira Deposit and Participation Accounts, the amounts converted from resident real persons' FX deposit accounts/FX-denominated participation funds to TL time deposits/participation accounts were decided to be excluded from TL liabilities subject to RR. It was also decided to pay 14 percent interest/remuneration to twice the amount



	calculated by multiplying these sums with the highest RR rate applicable to the TL deposit/participation fund.
07.01.2022	Commission rates applied as 0 percent for RR maintained for deposit/participation fund liabilities in USD and as 0.125 percent for RR maintained for deposit/participation fund liabilities in foreign currencies other than USD were both increased to 1.5 percent. It was decided not to apply these commission rates, if the criteria regarding the conversion rates calculated according to the procedures and principles determined by the CBRT were met. However, it was also decided to double these commission rates, unless the 10 percent conversion rate is reached on the 02.09.2022 calculation date.
21.01.2022	Within the scope of the Communiqué No. 2021/16 on Encouraging the Conversion from Gold Accounts to Turkish Lira Deposit and Participation Accounts, it was decided to exclude the amounts converted from gold-denominated deposit/participation funds of resident real persons from TL time deposit/participation accounts in TL liabilities subject to RR.
04.02.2022	Converted amounts belonging to resident legal persons included within the scope of Communiqués No. 2021/14 and 2021/16 were also exempted from RR. To increase the share of TL in the total deposit/participation funds within the banking system, as announced on 01.07.2021, a decision was taken to exempt from RR liability the amounts deposited in FX deposit/participation fund accounts by 25.06.2021 and converted into TL deposit/participation funds after this date, and to terminate the payment of additional interest/remuneration on RRs maintained in TL corresponding to these amounts.
04.03.2022	It was decided that balances of accounts opened within the scope of the Communiqué No. 2022/7 on Deposit and Participation Scheme Accounts for Non-Resident Turkish Citizens (YUVAM) would not be included in TL liabilities subject to RR as long as they remain in the account.
01.04.2022	Within the scope of the Communiqué No. 2022/11 on Bringing Physical Assets in Gold into the Financial System, it was decided not to include the amounts converted into TL-denominated deposits and participation accounts in TL liabilities subject to RR as long as they remain in the TL time deposit account.
15.04.2022	The interest/remuneration rate to be applied to RRs maintained in TL was set as 0 percent, and payment of additional interest/remuneration to TL RR based on the conversion of the accounts of resident real persons was terminated.
13.05.2022 and 10.06.2022	Banks' and financing companies' TL-denominated commercial cash loans, with the exception of certain loan types, were decided to be subject to RR. Accordingly, - Commercial loans, which have been extended in four-week periods since 01.04.2022, shall be subject to a RR of 10 percent of the said loans within the same maintenance periods. - For banks with a loan growth rate above 20 percent by 31.05.2022 compared to 31.12.2021, the difference between their loan balances on 31.03.2022 and 31.12.2021 shall be subject to RR of 20 percent of this difference for a period of 6 months. Moreover, it was decided to differentiate FX deposit/participation fund RR ratios according to the conversion rate of real person's FX accounts to TL accounts, and accordingly, it was decided to implement an additional RR of: - 500 bps for banks with a conversion rate below 5 percent, and - 300 bps for banks with a conversion rate between 5 percent and 10 percent. On the other hand, RR ratios of financing companies, which were 0 percent, were set at the same level as banks, and their liabilities to domestic banks were included in the scope of RR.
10.06.2022	For TL liabilities of financing companies, the RR ratio was set as 0 percent until the calculation date of 13.05.2022 (included). For FX liabilities, the RR ratio was set as 0 percent until the calculation date of 13.05.2022 (included), and 3 percent until the calculation date of 23.12.2022 (included).

### 3. Rediscount Credits

Effective Date	Measure / Regulation
09.11.2021	With the change introduced to the rediscount credit application for export and foreign exchange earning services: - The scope of TL-denominated spending areas was expanded. Payments for electricity, water and natural gas, payments in TL for export-related service purchases such as transport, insurance and freight, and payments in TL for investment goods and machinery purchases and similar expenditures were included within the scope of rediscount credit spending areas.

	<ul style="list-style-type: none"> <li>- In cases where it is not possible to transfer the payment directly to the receiver or paying via checks for the specified areas of spending such as salary payments made via another bank, it was allowed to send the amount of payment to another bank and transfer it to the receiver's account via this bank.</li> <li>- The standard limit defined for companies other than SMEs was increased to USD 200 million, and the maximum credit limit that these companies can utilize via banks other than Eximbank was increased to USD 20 million.</li> </ul>
08.02.2022	<p>With the change introduced to the rediscount credits for export and foreign exchange earning services, it was decided to keep the current rediscount credit limits until 31.12.2022, and to convert them to TRY 405 billion as of 01.01.2023. Out of this limit,</p> <ul style="list-style-type: none"> <li>- TRY 135 billion is for FX rediscount loans to be extended via Türk Eximbank,</li> <li>- TRY 135 billion is for TL rediscount loans to be extended via Türk Eximbank,</li> <li>- TRY 135 billion is for TL rediscount loans/financing to be extended via banks other than Türk Eximbank.</li> </ul> <p>Companies utilizing TL rediscount credits were offered a 100 bps interest discount for their commitment to preserve and increase employment; 100 bps for their commitment to be a net foreign exchange seller at the loan maturity; and 100 bps for their commitment to increase their exports by 10 percent in the calendar year in which the loan was utilized, compared to the previous year.</p> <p>Intermediary banks were informed that they need to comply with the new limits by the end of the year. Credit limits were also redefined in TL in line with the change made in the global limit. Accordingly, limits were set as TRY 4.5 billion for companies providing FX-earning services, intermediary exporters and companies operating in the defense industry; TRY 3 million for micro enterprises, TRY 12 million for small enterprises and TRY 12 million for medium enterprises in SMEs; and TRY 2.5 billion for non-SME companies. It was stated that the distribution of rediscount credit limits will also be made based on the unit of currency. Companies operating in the defense industry were provided with the opportunity to utilize rediscount credits with a maturity of 360 days.</p> <p>With FX rediscount credits, making import payments in foreign currencies other than TL was facilitated.</p> <p>Implementation of the additional foreign exchange sales commitment, which provided interest and maturity opportunities, was terminated.</p> <p>The maturity structure of TL rediscount credits was changed and a discount in rates was offered. Accordingly, the opportunity was introduced to reduce the policy interest rate by 300 bp for a maturity of 90 days, by 250 bp for a maturity of 91-120 days, and by 200 bp for a maturity of 121-180 days.</p>
09.02.2022	<p>With the change introduced to the rediscount credits for export and FX-earning services, being a net exporter was not required for companies that will utilize FX rediscount credits that make commitments for conversion to TL deposit or participation accounts within the scope of the Communiqué No. 2021/14 on Encouraging the Conversion of Turkish Lira Deposit and Participation Accounts.</p>
24.03.2022	<p>With the change introduced to the rediscount credits for export and FX-earning services:</p> <ul style="list-style-type: none"> <li>- Companies that utilized rediscount credits for export and foreign exchange earning services upon stating that they would export goods or services to Russia or Ukraine, were granted an additional 90 days to fulfill their additional FX sales commitments.</li> <li>- The domestic sales of certain goods and services by companies operating in strategic sectors were allowed to be classed as export commitments upon the CBRT's approval.</li> </ul>
13.04.2022	<p>Among rediscount credits for export and FX-earning services, which were utilized before 04.04.2022 and whose export commitment remained unfulfilled as of this date, an additional 12-month export commitment closing period was granted for those with commitments to be fulfilled by exporting goods or services to Russia and/or Ukraine.</p>
15.04.2022	<p>With the amendment introduced to the Implementation Instruction of Rediscount Credits Stemming from the Currency Swap Agreements of the Central Bank of the Republic of Türkiye:</p> <ul style="list-style-type: none"> <li>- Within the scope of the swap agreements signed separately by the Central Bank with the Bank of Korea and the Central Bank of the United Arab Emirates on 12.08.2021 and 19.01.2022, respectively, the facility to use swap-based rediscount credits in Korean Republic won (KRW) and United Arab Emirates dirham (AED) was created.</li> <li>- KORIBOR applicable at the relevant maturity shall be imposed on KRW loans and EIBOR + 50 bp applicable at the relevant maturity shall be imposed on AED loans.</li> <li>- Loans in KRW will be extended with a maximum maturity of 180 days, and loans in AED will be extended with a maximum maturity of 365 days.</li> </ul>

#### 4. Advance Loans Against Investment Commitment

01.03.2022	<p>With the amendment made in Implementation Instruction for Advance Loans against Investment Commitment:</p> <ul style="list-style-type: none"> <li>- Loans were allowed to be mediated by all banks.</li> <li>- Extension of loans with variable interest rates was cancelled.</li> <li>- The interest rate to be applied to loans was set as the policy rate. According to the commitments to be given by the company, a maximum of 500 bps discount from this rate was allowed.</li> <li>- Maximum limits for advance loans against investment commitment that can be utilized based on the firm types were determined.</li> <li>- It was decided to extend the loans against the commitment for the export of the goods to be produced after investment or for the contract for the substitution of imported goods.</li> <li>- Depositing loans into blocked accounts and their utilization by companies in return for the documents indicating the expenditures for investments was allowed.</li> <li>- Loan-utilizing companies were obliged to use TL in contracts and pricing.</li> <li>- Based on the investment region, the ratios of domestic machinery and international financing to be used in the investment, the import substitution effect of the investment and the company's export commitment, a discount was facilitated in the interest rate on the advance loan against investment commitment.</li> <li>- It was stipulated that the domestic contracts within the scope of the investment subject to the loan should be in TL and the pricing of the product to be produced as a result of the investment should be set in TL.</li> <li>- The obligation to operate in certain sectors to have access to loans was cancelled.</li> </ul>
20.04.2022	<p>With the amendment introduced to the Implementation Instruction for Advance Loans against Investment Commitment:</p> <ul style="list-style-type: none"> <li>- Provided that the total discount shall not exceed a maximum of 500 bps, a discount of 150 bp was allowed for each of the following conditions: tourism companies' commitments to provide foreign exchange earning services income before the expiry of the loan for the advance loans against investment commitments, investment in Culture Tourism Conservation and Development Regions or Tourism Centers determined in accordance with the provisions of the Law No. 2634, employing domestic inputs, and securing financing from abroad.</li> <li>- It was decided that tourism companies should price and sell the services to be offered to residents in TL after the investment.</li> <li>- It was allowed to transfer the loan amount to the company's account in return for the expenditures made before the loan is deposited into the blocked account and confirmed by the intermediary bank that it was intended for investment.</li> <li>- The total limit of the advance loans against investment commitment was increased to TRY 150 billion, TRY 50 billion of which was allocated to tourism enterprises and TRY 100 billion to advance loans against investment commitments to be utilized by other companies.</li> </ul>

#### 5. Deposit/ Participation Funds and Payment Systems

Effective Date	Measure / Regulation
16.12.2021	The period of reduction in the withholding tax rates applied to deposit/participation funds was extended until 31.03.2022.
20.12.2021	With a view to enhancing financial stability by increasing the share of TL within the total deposit/participation funds in the banking system, it was decided to provide support to the amounts converted from foreign exchange deposit accounts or participation funds in US dollars, euros and British pounds to time deposits/participation accounts in TL.
21.12.2021	The Ministry of Treasury and Finance offered real persons residing in Türkiye (including Turkish citizens who are workers, freelancers and self-employed abroad and who have a legal residence in Türkiye) with the Currency Protected TL Time Deposit product.
25.12.2021	The deduction (withholding tax) was set as 0 percent on currency-protected time deposit accounts and deposits and participation accounts converted into TL from foreign currency deposit accounts at the conversion rate.
29.12.2021	It was decided to offer support to deposit and participation fund holders provided that the gold deposit accounts and participation funds are converted into TL time deposits and participation accounts.
11.01.2022	It was decided to offer support to deposit and participation fund holders provided that the foreign currency and gold denominated deposit accounts and participation funds of resident legal persons are converted into time TL deposit and participation accounts.

29.01.2022	An amendment was introduced to the Communiqué on the fees that banks can charge their commercial customers. The reference rate on which the interest rate on credit card transactions is based was changed. Accordingly, the lower rate is to be considered between the one calculated by the weighted average flow interest rate applied by banks to all types of TL deposits opened with a maturity of 32-45 days, and the rate calculated by an increase of 10 percent in the policy rate decided by the Central Bank, which is announced by the Central Bank on the 5th from the last business day of the month following an update if a higher-than-5 percent upward or downward change occurs.
01.02.2022, 18.02.2022 and 22.03.2022	It was decided to provide support provided that the foreign currency deposit accounts and foreign currency participation funds of the companies whose fund holders are non-residents with legal residences abroad the qualifications of which are endorsed by the Central Bank are converted into the Deposit and Participation Scheme for Non-Resident Turkish Citizens (YUVAM) accounts in TL.
14.03.2022	It was decided to support account holders if the physical gold assets that resident real and legal persons deposit in the gold accounts of banks directly in branches of banks or through authorized jewelers and refineries are converted into TL-denominated deposit and participation accounts.
21.02.2022	In view of the considerable interest that the FAST system attracted and the dynamic requirements of the payments ecosystem, the limit of FAST transaction amounts for money transfers was increased from TRY 2,000 to TRY 5,000.
01.04.2022	The period of reduction in the withholding tax rates applied to deposit/participation funds was extended until 30.06.2022.

#### 6. Regulations regarding Credit Extension, Installments and Debt Repayments

Effective Date	Measure / Regulation
21.12.2021	Maturity limits and loan-to-value ratios were redefined in consumer loans utilized for mobile phone purchases and financial leasing transactions. Accordingly, the amount on which the maturity limit for these loans is based, was raised from TRY 3,500 to TRY 5,000. The maximum maturity was set as 12 months for mobile phones priced TRY 5,000 and below, and 3 months for mobile phones priced above TRY 5,000. Provided that the mobile phone purchase is made from a "renewal center" or "authorized seller", the period for credit card installments was set as 12 months for phones priced TRY 5,000 TL or less, and 6 months for those priced above TRY 5,000 in purchases of mobile phones classified as "renewed product".
22.02.2022	Maturity limits and loan-to-value ratios were redefined in consumer loans extended for vehicle purchases and financial leasing transactions. Accordingly, maturity limits and loan-to-value ratios for these loans and financial leasing transactions were set as: - 48 months and 70 percent for the final invoice value of TRY 400,000 or less, - 36 months and 50 percent for the final invoice value between TRY 400,000 and TRY 800,000 (included), - 24 months and 30 percent for the final invoice value between 800,000 and TRY 1.2 million (included), - 12 months and 20 percent for the final invoice value between TRY 1.2 million and TRY 2 million (included).

#### 7. Classification of Loans and Receivables and Legal Ratio Limitations

Effective Date	Measure / Regulation
21.12.2021	In the Capital Adequacy Ratio regulation, - In calculating the amount subject to credit risk, out of the monetary and non-monetary assets, those other than the foreign currency items with cost-based measured dates, the simple arithmetic average of the Central Bank's foreign exchange buying rates of the last 252 business days before the calculation date is used when calculating the valued amounts in accordance with the TAS and the relevant special provision amounts. It was decided to maintain the implementation of this rule until decided otherwise by the Board, by using the simple arithmetic average of the Central Bank's foreign exchange buying rates for the last 252 business days as of 31.12.2021 in the said calculation starting from 01.01.2022. - In case the net valuation differences of the Securities at Fair Value through Other Comprehensive Income are negative, these differences may not be reflected in the equity, and the provisions of the current Regulation for "Securities at Fair Value Difference Through Other Comprehensive Income" shall be implemented,

	- It was decided to raise the limit for the definition of SME in the Capital Adequacy Regulation from TRY 150 million to TRY 220 million for resident SMEs, and to increase the retail loan limit from TRY 7 million to TRY 10 million TL. Meanwhile, for non-resident SMEs, it was decided to use the definition of SME, which is used by the banking authority of the country where the SME is located, in the calculation of capital adequacy.
06.01.2022	A decision was taken in relation to companies which had the obligation to obtain a credit rating due to a leap in the exchange rate or other reasons but failed to sign a contract. For these companies to have access to loans, regardless of the date on which the company was included within the scope of this obligation, it was stipulated that a valid rating obtained from a rating agency authorized for loan utilization in loan applications or a document from an authorized rating agency confirming that the rating process has been initiated must be submitted to the bank to which the loan application was made.
28.04.2022	In the Capital Adequacy Ratio regulation, - An amendment was made to replace the use of the simple arithmetic average of the Central Bank's foreign exchange buying rates for the last 252 business days before the calculation date as the use of the Central Bank foreign exchange buying rate for 31.12.2021. - Except for agricultural loans, SME loans, export and investment loans, loans to public institutions organizations and SEEs, corporate credit cards and loans to be extended to banks or financial institutions, the risk weight of commercial loans to be utilized as of 01.05.2022 was raised to 200 percent.

## 8. Other Regulations

Effective Date	Measure/ Regulation
08.12.2021	A Regulation was introduced to determine the principles for the partial or complete transfer of retirement savings or amounts of commitments in associations, foundations, funds, professional organizations with legal personality or other commercial companies that make pension commitments to their members or employees to the individual pension system. Accordingly, it was decided that the amounts related to all savings and amounts of commitments including employer contributions, whether domestic or abroad, can be transferred partially or completely to the pension contract made in accordance with the private pension and savings investment law.
22.12.2021	The deduction rate to be applied to the income and earnings to be obtained from the Government Domestic Debt Securities (GDDS) acquired by the end of 2021 was reduced to 0 percent.
23.12.2021	Trading of GDDS Futures Contracts on BIST VIOP was launched.
24.12.2021	The Sustainable Banking Strategic Plan prepared for the "3.2.5. Determining a roadmap for the development of sustainable banking" action of the Green Reconciliation Action Plan was adopted by the BRSA.
31.12.2021	The period for notification of the money, gold, foreign exchange, securities and other capital market instruments held abroad to banks or intermediary institutions in Türkiye was extended until 30.06.2022.
03.01.2022	Additional Article 1 was included into the Export Circular regarding the sale of 25 percent of the export value linked to the export value acceptance certificate or foreign exchange acquisition document to the CBRT at the exchange rate on the date of issue. To be effective on 18.04.2022, this rate was increased to 40 percent.
19.01.2022	It was stated in the Capital Movements Circular that the payment obligations concerning the real estates purchased in Türkiye by persons who are non-citizens of the Republic of Türkiye should be fulfilled in foreign currency and these foreign currencies should be sold to a bank, and the bank should sell them to the CBRT before the transfer of title deeds.
20.01.2022	The amount of state contribution in the Individual Pension System (IPS) was increased from 25 percent to 30 percent.
18.03.2021	Monetary limits for the classification of SMEs were redefined through amendments to the Regulation on the Definition, Qualifications and Classification of Small and Medium-Sized Enterprises. New classifications are as follows: a) Micro-enterprise: Businesses with less than ten employees on an annual basis and either the annual net sales revenue or financial balance sheet of which does not exceed TRY 5 million,

	<p>b) Small business: Businesses with less than 50 employees on an annual basis, and either the annual net sales revenue or financial balance sheet of which does not exceed TRY 50 million,</p> <p>c) Medium-sized enterprise: Enterprises with less than two hundred and fifty employees on an annual basis, and either the annual net sales revenue or financial balance sheet of which does not exceed TRY 250 million.</p>
15.04.2022	The Invisibles Circular was re-arranged stipulating that if the foreign currency obtained from foreign exchange earning services/transactions is sold to banks, at least 40 percent this foreign exchange will be sold by these banks to the CBRT.
18.04.2022	Residents in Türkiye were allowed to agree on the contract price and other payment liabilities arising from movable sales contracts other than those for vehicle sales in foreign currency or indexed to foreign currency. However, the parties now have to admit and fulfill the payment liabilities subject to the contracts in TRY.
25.04.2022	The lower limit of cancellation in the export prices brought into the country, which was USD 30,000, was set as USD 15,000 as of 25.04.2022.
30.04.2022	Financing support was announced through Halkbank in 6 categories to offer financing facilities to entrepreneurs with advantageous interest rates, a 12-month principal grace period and a maturity of up to 60 months.
11.05.2022	With the Decision on the Treasury support provided to the credit guarantee institution, a regulation was made on the maximum guarantee amount. Accordingly, the maximum guarantee amount limits were increased from TRY 35 million to TRY 100 million for SMEs, and from TRY 250 million to TRY 350 million for legal persons excluded by the SME definition. In addition, the rediscount credits obtained from the Central Bank's resources were exempted from the criterion of a minimum maturity of 6 months for retail and business loans, which is among the guarantee conditions to be provided in this context.
13.05.2022	To be effective on 13.06.2022, the minimum purchase requirement for Turkish citizenship through real estate investment was increased from USD 250,000 to USD 400,000. In addition, foreigners, who enrolled in the IPS with an amount of USD 500,000 or its FX equivalent and remained in the system for 3 years, were granted with the right of Turkish citizenship.

## Box II.2.II

### Why Is Liraization Necessary for the Achievement of Financial Stability?

The use of foreign currencies as a medium of exchange and store of value in place of a country's own domestic currency is referred to as currency substitution, or dollarization. In the related literature, dollarization is usually categorized into full dollarization, asset or liability dollarization, and real dollarization.<sup>1,2</sup> In the case of full dollarization, a country entirely abandons its own currency and substitutes it with a foreign currency (FX). While asset dollarization refers to the use of foreign currency as a medium of exchange, unit of account, or store of value, liability dollarization is used for cases where FX liabilities account for a large share of the liabilities of the banking system, the corporate sector, or the public sector. On the other hand, real dollarization refers to the indexation of domestic prices and wages to FX.<sup>3</sup>

Country experiences show that dollarization increases vulnerabilities through various channels in the economy. Dollarization-driven vulnerabilities in the financial sector may increase due to payment capacity-related risks and the liquidity risk during times of currency depreciation. Banks hedge against the exchange rate risk by holding FX assets for their FX liabilities or extending domestic FX loans. While extending FX loans transfers the exchange rate risk to the borrower, the default risk for these loans heightens in the event of currency depreciation.<sup>4</sup> When loans are not paid back, banks may incur an FX open position and it may get harder to cover FX liabilities that have become due. On the other hand, unpaid loans deteriorate the asset quality of banks, and may lead to a fall in bank profitability and a capital meltdown. These negative effects may emerge not only in case of currency depreciation but also as a result of rapid changes in the parities. Moreover, high dollarization in banks' assets increases the sensitivity of assets to the exchange rate, and risk-weighted assets grow in nominal terms, even if not in terms of amount, during periods of sharp rises in the exchange rate, leading to deterioration in capital adequacy indicators. Accordingly, banks under capital adequacy pressure may increase loan rates sharply or downsize their balance sheets, thereby curbing the corporate sector's access to financing significantly.

The dollarization-driven liquidity risk in the financial sector may emerge in cases where individuals' or companies' demand for domestic currency-denominated assets decline in periods of increased exchange rate volatility, and deposits or under-the-mattress assets are converted into FX or transferred to foreign countries. To meet the sudden demand for FX, banks feel under pressure to liquidate their FX assets and find new FX liquidity, and may resort to methods such as recalling short-term FX loans or not renewing them. Such developments lead to vulnerability for financial stability to the extent to which FX assets of the financial system fall short of meeting this FX demand, and increase the default risk while the growing FX liquidity demand further strengthens the upward pressure on the exchange rate and thereby create a cycle in the system that feeds on itself.

In the event of high dollarization, exchange rate volatilities have the potential to negatively affect the balance sheets not only in the financial sector but also in the public sector that has mostly domestic currency-denominated revenue and external debt-driven FX liabilities. The currency mismatch between assets and liabilities in the public sector increases the financing costs and the debt burden of the sector in cases of currency depreciation, and may lead to a rise in the country's risk premium by worsening the budget balance. Moreover, the debt burden that increases due to exchange rate developments may entail the use of a significant portion of the budget for debt payments, thereby leading to a fall in public investments. A possible deterioration in public finance caused by exchange rate developments may also negatively affect the financial sector that holds government securities in its portfolio.

<sup>1</sup> Berg, Andrew and Eduardo Borensztein (2000), "Full Dollarization: The Pros and Cons", IMF ECONOMIC ISSUES NO. 24; World Bank, "On the Definition of Dollarization", [web.worldbank.org/archive/website00960A/WEB/OTHER/B8099E91.HTM](http://web.worldbank.org/archive/website00960A/WEB/OTHER/B8099E91.HTM)

<sup>2</sup> Ize, Alain and Eduardo Levy Yeyati (2003), "Financial Dollarization", *Journal of International Economics* 59 (2003) 323-347; Yılmaz, Gökhan (2005), "Financial Dollarization, (De)Dollarization and the Turkish Experience", Turkish Economic Association, Discussion Paper 2005/6.

The adverse effects of dollarization on the corporate sector are manifested in the form of a deterioration in pricing behavior due to exchange rate pass-through (price increases inconsistent with supply-demand developments or frequent price adjustments) as well as an exchange rate risk driven by the FX asset-liability mismatch in the balance sheets of firms. Increased exchange rate volatility may lead to turnover loss, cash flow deterioration, and employment decline in sectors that bear FX-indexed input costs but cannot reflect these costs to the prices of their products. Firms with high liability dollarization but insufficient FX revenues may have difficulty to pay their debts and run an insolvency risk. Natural or financial hedging capacities of firms with FX liabilities play a determining role in the evolution of these risks.<sup>5</sup> On the other hand, high dollarization in corporate sector loans feeds into deposit dollarization as it urges firms to hold more FX deposits, and exerts upward pressure on the exchange rate by leading to FX demand for loan repayments.

Dollarization also has unfavorable implications for the effectiveness of monetary policy and price stability. Increased dollarization in the system causes instability in money demand, thereby making it hard to estimate and control inflation. High dollarization weakens the monetary transmission mechanism by increasing the dependency of production and pricing decisions on the exchange rate. Central banks that want to affect the domestic currency interest rates and money demand in the market through short-term policy rates lose their ability to do so as the FX share in the system rises. In addition, the domestic currency equivalent of FX deposits, which constitute an important component of broad money supply, expands during exchange rate increases, and this leads to a nominal growth in money supply. If this sudden growth in money supply is not balanced quickly with production, demand inflation accelerates, asset price bubbles may emerge, and it becomes hard to achieve price stability.

**Table II.2.II.1: Adverse Effects of Dollarization on Financial Stability**

<b>Banking Sector</b>	Credit risk	Increase in the default risk for FX loans in case of an exchange rate shock
	Liquidity risk	Increase in economic units' demand for FX assets in case of an exchange rate shock
	Capital adequacy	Pressure on CAR pro rata banks' share of FX assets, in case of an exchange rate shock
<b>Corporate Sector</b>	Pricing behavior	Deterioration in firms' pricing behavior due to exchange rate pass-through
	Exchange rate risk	Decline in firms' FX loan repayment capacity in case of an exchange rate shock
	Profitability	Pressure on turnover and profitability of firms with limited capability to reflect their FX-indexed input costs to product prices
<b>Monetary Policy</b>	Transmission mechanism	Decrease in the effect of policy rate on market rates and money demand
	Volatility in money supply	FX deposits-driven nominal expansion in money supply and demand inflation in cases of an exchange rate increases
<b>Public Sector</b>	Budget balance	Exchange rate-driven increase in financing costs and debt burden in the public sector
	Country risk premium	Rise in country risk premium led by the deterioration in public finance

The various adverse effects listed above turn dollarization into a problem that requires an active fight. This fight necessitates deterring economic agents from FX use that is inconsistent with macroeconomic fundamentals on the one hand, and encouraging the use of domestic currency at the same time. In this way, unhealthy price formations in the exchange rate will be avoided, and the effects of the exchange rate on financial stability and the real economy will be contained. The "Liraization Strategy" introduced in the last quarter of 2021 has moved the fight against dollarization into an important stage. The liraization strategy is based on a holistic approach that puts the use of Turkish lira in the system at the center through new financial products, collateral diversification, and liquidity management regulations. The liraization strategy includes an

<sup>3</sup> Ize, Alain and Eric Parrado (2006), "Real Dollarization, Financial Dollarization, and Monetary Policy", Central Bank of Chile Working Papers, No. 375.

<sup>4</sup> With a regulatory amendment in 2009, households were prohibited to borrow in foreign currency and thus, they were protected from the exchange rate risk.

<sup>5</sup> With a regulation in 2018, the FX loan amount that can be taken out by firms with an FX loan balance below USD 15 million was linked to their FX revenues for the last three years, reducing their exchange rate risk.



extensive and diversified toolkit, while the existing tools in the policy set are reviewed in line with the liraization target and strengthened to encourage liraization.

Accordingly, the facility for holding FX for TL liabilities under the Reserve Options Mechanism was terminated in 2021, and it was announced that the facility for holding gold for TL liabilities would also be terminated in 2022.

FX-Protected Deposit and Participation Accounts (KKM) products, which are one of the main tools of the liraization strategy that have been gradually put into effect since December 2021, significantly contribute not only to liraization but also to the exchange rate stability and the extension of funding maturities. Together with YUVAM accounts that encourage non-resident persons and their companies abroad to invest their savings in TL time deposits at banks in Türkiye, KKM products are also strongly supported with fiscal policy, reserve requirements, and CBRT funding regulations. In this scope, the withholding tax, which is applied on TL deposits and participation funds at a reduced rate, has been set at zero for FX-protected deposit products, the banking and insurance transaction tax (BMSV) was zeroed in FX sales at KKM maturities, reserve requirement ratios and remuneration rates and commissions have been determined in a way to encourage conversion to CBRT-backed KKM, and the converted amounts have been exempted from the reserve requirement obligation. Moreover, to reduce the share of FX collaterals in the total collaterals received for the TL funding provided by the CBRT, it was stipulated that banks should place higher amounts of collaterals in terms of GDDS and/or lease certificates issued domestically by the Undersecretariat of Treasury Asset Leasing Company (HMKVŞ), for the transactions on the Interbank Money Market (IMM). It was also set forth that at least 30% of the collateral blockage for swap transactions should be composed of certain TL assets.

With a regulatory amendment in September 2021, export rediscount credits started to be extended in TL as well, and they were allowed to be used only for specified TL-denominated expenditures to ensure that the CBRT funding would not create FX demand and that rediscount credits would be used for their intended purpose. Moreover, in February 2022, it was decided that company limits for export/FX-earning services rediscount credits should be converted to TL, and that the total limit of such credits and the limits allocated to banks should also be converted to TL by the end of the year. Meanwhile, companies that were not net exporters were granted the right to use FX-denominated rediscount credits on condition of conversion to the KKM.

The facility of advance loans against investment commitment introduced in June 2020 together with pandemic measures was redesigned in the scope of the liraization strategy in March and April 2022. Accordingly, it was stipulated that firms would be able to use these loans on condition that their investment-related domestic commercial transactions as well as the domestic pricing and sale of the goods produced with the relevant investment would be in TL, and also that investments to be financed should lead to an increase in exports or create import substitutes. In accordance with this structure, investments in sectors that reduce imports and contribute to exports are supported via long-term TL loans.

With the regulation introduced in January 2022, house purchases by foreigners were required to be made in foreign currency that should then be sold to the CBRT to be converted to TL and paid to the seller. Thus, the use of TL in domestic payments was supported.

In the private pension system, the state contribution ratio was increased from 25% to 30% in January 2022, and a partial withdrawal opportunity was introduced in which up to 50% of the saving amount at the account, excluding the state contribution, could be withdrawn, aiming to increase TL savings and the use of TL.

In April, while the facility allowing the setting of contract prices in FX or FX-indexed terms in sales contracts of movables (all kinds of goods and property that do not fall under the definition of real estate) was retained, an obligation was introduced requiring that payments arising from such contracts should be made / accepted in TL.

To lay the foundation for permanent and sustainable price stability, the liraization process is strongly encouraged through a review of all policy tools with a perspective to build the financial system on TL instruments.

## Box II.2.III

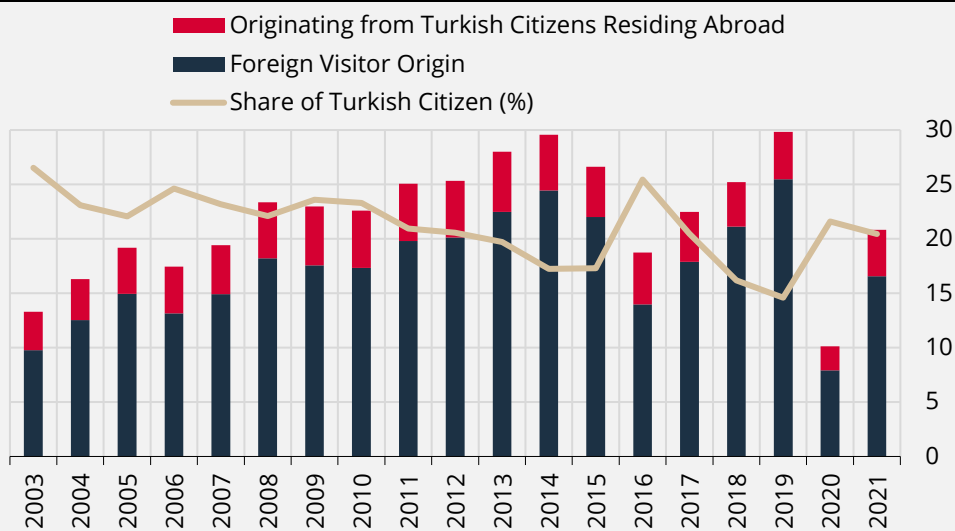
### YUVAM Accounts Scheme in the Scope of Efforts to Repatriate the Savings of Workers Abroad

The increase in industrial production of developed countries after World War II led to a rise in labor demand in these countries, which accelerated international labor migration starting from the 1950s. Accordingly, the first labor migration from Türkiye to a foreign country started following the labor agreement signed between Türkiye and the Federal Republic of Germany on 31 October 1961. With the labor agreements signed with Austria, Belgium and the Netherlands in 1964, with France in 1965, and with Sweden in 1967, labor migration from Türkiye accelerated and spread to other countries as well. From 1962 to end-2020, a total of 2.7 million Turkish citizens migrated to foreign countries as workers. Currently, 6.7 million Turkish citizens, together with their family members, live abroad, 85% of whom reside in Western European countries.<sup>1</sup>

Labor migration entailed savings sent to Türkiye by migrant workers to support their relatives in the early years and for investment purposes in the following periods, or their spending during visits to Türkiye. Various incentives were introduced in the past to encourage Turkish citizens residing abroad to repatriate their savings to Türkiye. The main incentives may be stated as: provision of facilities such as general-purpose loans, housing loans and artisan loans at favorable terms as well as duty-free imports of automobiles in return for deposit accounts to be opened in Türkiye by non-resident workers; incentives regarding retirement premiums, short-term military service in return for foreign currency; the convertible Turkish lira deposit scheme; higher exchange rates for workers' remittances; allowing non-resident workers to open accounts at the Central Bank; and as a recent practice, the Deposit and Participation Scheme for Non-Resident Turkish Citizens (YUVAM) accounts.

One of the most evident contributions of non-resident Turkish citizens to the country's economy comes from their tourism spending during visits to Türkiye. Approximately 20% of average tourism revenues, which constitute an important financing item of the current account, are received from non-resident Turkish citizens (Chart II.2.III.1).

**Chart II.2.III.1: Tourism Revenues and the Share of Turkish Citizens** (USD Million, %)



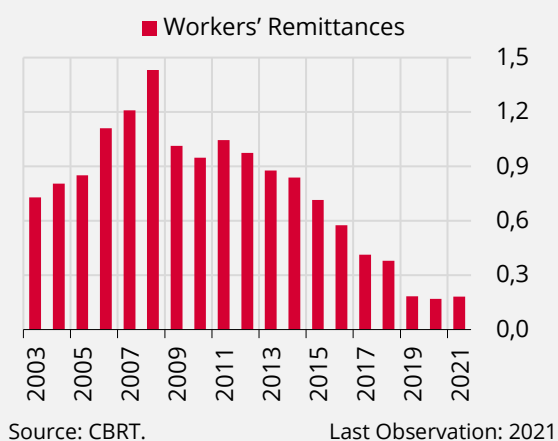
Source: TURKSTAT

Last Observation: 2021

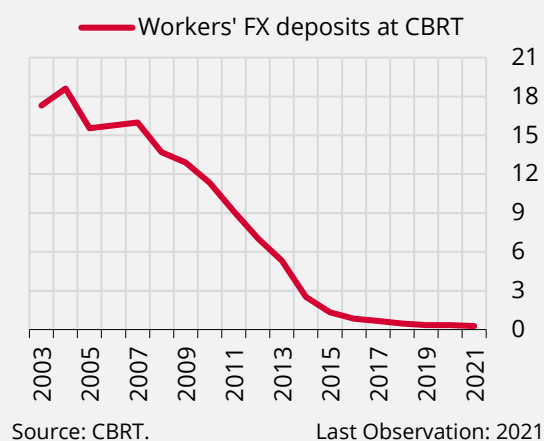
Worker income transfers, which are composed of foreign currencies transferred by Turkish citizens from abroad and converted to Turkish lira, and presented under "Workers' Remittances" in the current account section of balance of payments reporting, remained at low levels in early years due to the small number of workers abroad and their main accommodation costs. However, they contributed to current account financing at an increasing rate starting from the 1970s. Workers' remittances have been significantly on the decline particularly since 2009, and were annually at around USD 180 million on average in the 2019-2021 period (Chart II.2.III.2).

To bring the savings of non-resident citizens into the country's economy and meet the FX need that increased with the 1994 crisis, Turkish workers living abroad were allowed to open accounts at the Central Bank via the Foreign Exchange Deposit Accounts With Credit Letters (KMDTH) introduced on 1 April 1976 and the Super FX Accounts (SDH) introduced on 15 July 1994. Compared to international markets, attractive interest rates were applied to KMDTH and SDH, and these FX accounts of workers significantly contributed to current account financing and the Central Bank's FX reserves until the 2000s (Chart II.2.III.3). However, starting from the 2000s, the attractiveness of these accounts was reduced over the years due to the increase in financial instrument diversity and the growth of FX reserve sources other than workers remittances. Consequently, these accounts were gradually terminated starting from 2014.

**Chart II.2.III.2: Workers' Remittances to Türkiye (USD Billion)**



**Chart II.2.III.3: KMDTH and SDH Balance (USD Billion)**



With a view to encouraging non-resident citizens to invest their savings in Türkiye, building a savings structure in which their returns on such investments are protected in all cases, and contributing to growth and the balance of payments by bringing savings into the Turkish economy, the Central Bank introduced the Deposit and Participation Scheme for Non-Resident Turkish Citizens (YUVAM) accounts on 1 February 2022.

In the scope of this scheme, non-resident Turkish citizens can benefit from the associated incentives if they convert into YUVAM accounts their FX deposit and participation accounts to be opened at domestic banks in foreign currencies transferred from abroad or deposited in Turkish banks in cash, or their existing FX deposit or participation accounts at banks in Türkiye. YUVAM accounts that can be opened at maturities of 3, 6, 12 and 24 months (the interest/profit share on YUVAM accounts with 24-month maturities are also payable in annual accrual terms) offer account holders a Central Bank guarantee of protection against exchange rate volatility and also additional return at varying rates depending on maturities.

While Turkish citizens with the right or a permit to reside or be employed abroad, or Blue Card<sup>2</sup> holders who were allowed to renounce Turkish citizenship were able to open a YUVAM account, the scope was extended to include companies the fund holders of which are non-resident Turkish citizens, and the legal residence of which is outside Türkiye with the regulatory amendment on 18 February 2022, and to foreign persons and companies eligible to open an account in Turkish banks with the amendment on 22 March 2022.<sup>3</sup>

There is no upper/lower limit or time restriction for opening a YUVAM account, nor is there an obstacle to renewing the existing accounts at their maturities or converting the account balance back to foreign currency. Moreover, interest/profit shares earned from YUVAM accounts are not subject to taxation. Based on the return calculation, account holders earn more than they would if they kept the savings in foreign currency, considering the exchange rates at the beginning and end of maturity. Hence, they get to have a very appealing financial investment instrument for their savings that offers a guarantee of FX protection as well as additional return at maturity. In addition, YUVAM accounts bring savings from abroad into the country's financial system, thereby supporting the Turkish economy.

<sup>1</sup> Republic of Türkiye Ministry of Foreign Affairs (<https://www.mfa.gov.tr/the-expatriate-turkish-citizens.en.mfa>)

<sup>2</sup> Blue Card granted pursuant to Article 28 of the Turkish Citizenship Law No. 5901 dated 29 May 2009.

<sup>3</sup> For further information on YUVAM legislation and implementation details, visit <https://yuvam.tcmb.gov.tr/>

### III. Non-Financial Sector

**Türkiye's household indebtedness (financial debt/GDP) remained below the EME average, while household financial assets increased significantly on the back of the strong growth in deposits and non-deposit financial assets.** In the current Report period, household financial liabilities followed a sluggish course while their financial assets posted strong growth. The growth in financial liabilities was mainly driven by personal credit card balances, whereas the shares of other financial liabilities in GDP decreased. The share of wage-earners with low income volatility in liabilities has increased in recent years, which limits the household credit risk. Among household financial assets, TL deposits rose substantially due to individuals' preference for the KKM whereas FX and precious metal deposits decreased. In addition, the shares of non-deposit financial assets in GDP increased, which is deemed to be a positive development in terms of broad-based use of other instruments as an alternative to deposits.

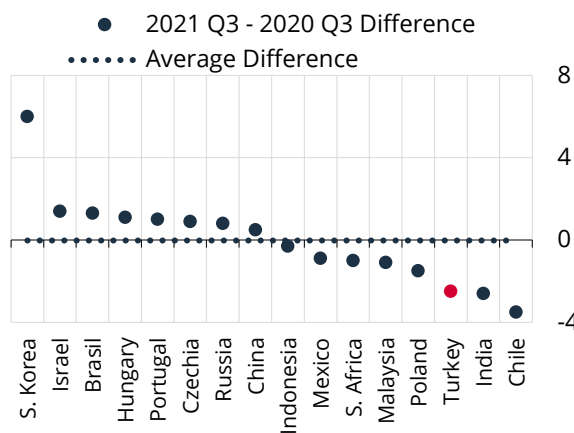
**While Türkiye's corporate sector indebtedness remains moderate compared to peer countries, the ratio of its financial liabilities to assets is at the lowest level of the last 10 years. Liquidity, profitability and debt service indicators of firms continue to improve at a stronger pace.** The developments in exchange rates and commodity prices have driven up the cost burden, financing need and consequently financial liabilities of firms. On the other hand, the increase in turnover and profitability driven by strong economic activity has contributed to their assets. The corporate sector's FX financial debt decreased in tandem with the decline in domestic FX loans, and the FX risk outlook continued to improve. While firms' access to external financing remains strong, they maintain to renew more than 100% of maturing external debts. Profitability of corporate sector firms has increased on the back of strong economic activity, brisk exports, and inventory revaluation. Debt service indicators of firms have improved owing to the stabilization of the exchange rate in the first quarter of 2022 as well as the strong profitability performance.

### III.1 Household Developments

#### Household indebtedness in Türkiye remains below that of peer countries.

Countries' household indebtedness increased due to expansionary credit policies implemented globally in the environment of uncertainty in the early phase of the pandemic, while there was a more balanced course of indebtedness in 2021. As for Türkiye, although household indebtedness rose at the beginning of the pandemic period, the household debt/GDP ratio decreased in the following period on the back of the relatively strong course of economic activity (Chart III.1.1). In terms of level, the household financial debt/GDP ratio is 15.5%, remaining below the averages of AEs and EMEs (Chart III.1.2). This level indicates that household indebtedness-driven risks in Türkiye are systemically more manageable compared to other countries.

**Chart III.1.1: Change in Household Indebtedness (Percentage Points)**

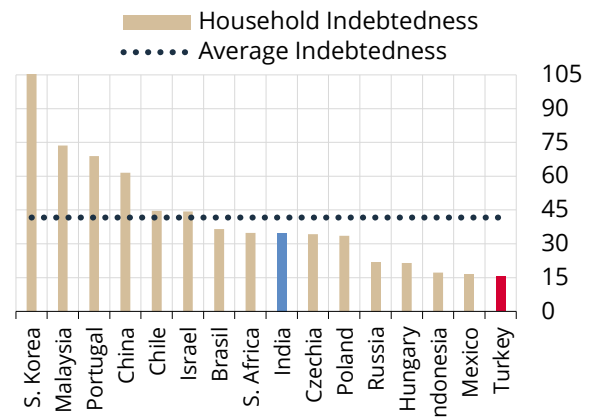


Source: BIS

Last Observation: 2021Q3

Note: Difference values denote the one-year change in indebtedness ratio. The horizontal line shows the change in the average indebtedness of selected countries over the last one year.

**Chart III.1.2: Household Indebtedness (Debt/GDP, %)**



Source: BIS

Last Observation: 2021Q3

Note: Household indebtedness is calculated as the total of debt securities and loans of households and non-profit institutions serving households / GDP ratio. The country marked in blue has median indebtedness in the sample.

A breakdown of household financial debt by subcategories reveals that the rise in personal credit card (PCC) debt was significant while no marked increase was observed in other loan types (Table III.1.1). The surges in consumer goods and services prices are deemed to have been effective in the rise in PCC debt. In the same period, general-purpose and housing loans posted a mild growth while their ratios to GDP declined.

**Table III.1.1: Household Financial Liabilities**

	03.21		09.21		03.22		6-Month Growth (Annualized)
	TRY Billion	Ratio to GDP	TRY Billion	Ratio to GDP	TRY Billion	Ratio to GDP	
<b>Total Liabilities</b>	<b>937.2</b>	<b>17.5</b>	<b>1017.4</b>	<b>15.9</b>	<b>1137.8</b>	<b>14.6</b>	<b>25.1</b>
Housing	304.1	5.7	310.1	4.8	338.3	4.4	19.0
Vehicle	26.5	0.5	27.0	0.4	25.4	0,3	-11.3
General-Purpose	415.9	7.8	455.9	7.1	500.5	6.4	20.5
Personal Credit Cards	160.4	3.0	193.8	3.0	240.7	3.1	54.3
AMC Receivables	30.3	0.6	30.7	0.5	32.9	0.4	15.0

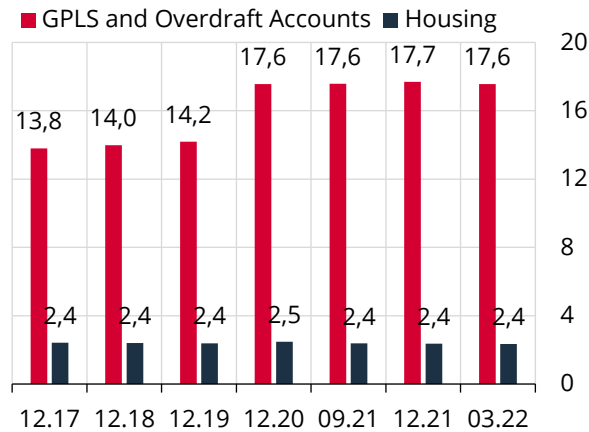
Sources: CBRT, BRSA, TOKİ

Note: Liabilities also include NPLs.

### The share of fixed-income wage earners in household indebtedness has been on the rise in recent years.

The number of general-purpose loan borrowers, which had been driven up by the basic needs support loans extended in small amounts and at affordable costs during the pandemic period, dropped slightly in the last Report period (Chart III.1.3). Meanwhile, the number of housing loan borrowers did not change significantly. On the other hand, the share of wage earners in loan utilization continues to hover above 70% despite some decline in the third quarter of 2021 (Chart III.1.4). The increase in the share of wage-earners with low income volatility in recent years limits the household credit risk.

**Chart III.1.3: Number of People with Consumer Loan Balance** (Million Individuals)

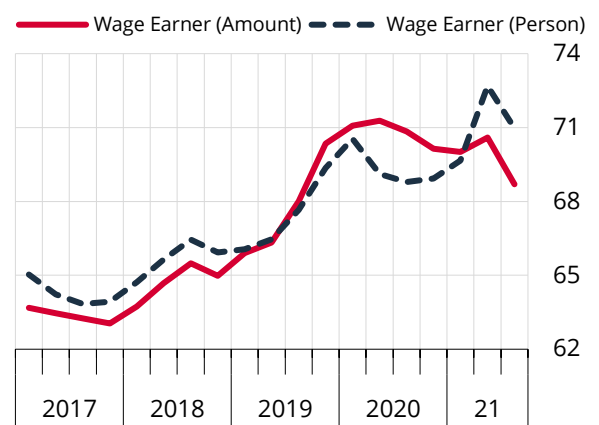


Source: BAT

Last Observation: 03.22

Note: Reports the number of individual general-purpose and housing loan borrowers in the banking sector. General-purpose loans include overdraft accounts. Zero-balance overdraft accounts are excluded.

**Chart III.1.4: Income Profile of Consumer Loan Borrowers** (% Share)



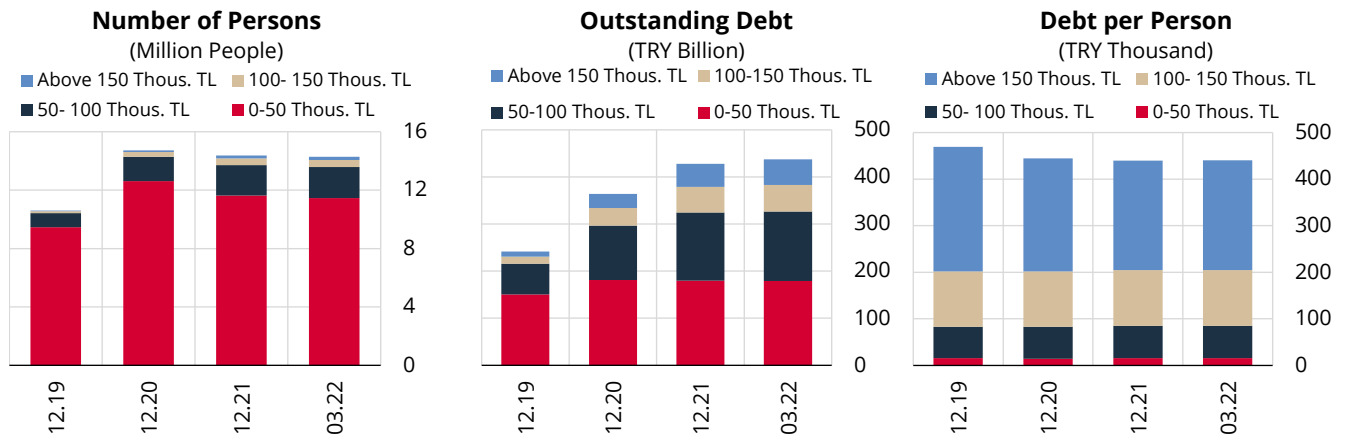
Source: BAT

Last Observation: 2021Q3

Note: Loan borrowers have been categorized into wage-earners and other. The chart shows the share of wage-earners in total. Wage earner amount-person shares show the quarterly flow developments. Consumer loan is the total of retail loans excluding PCC. The data is obtained from 32 banks that are members of the Banks Association of Türkiye (BAT).

### While the majority of people who have taken out general-purpose loans are borrowers of small loans (below TRY 50,000), the debt distribution in a breakdown by amounts is balanced.

Approximately 80% of general-purpose loan borrowers have small loan debt (below TRY 50,000), accounting for almost 40% of total general-purpose loans (Chart III.1.5). The small loans extended under the Basic Needs Support Package to mitigate the adverse effects of the pandemic on households in the second quarter of 2020 were influential in the increase in the loan balance and number of borrowers in the TRY 0-50,000 bracket. In fact, the average per capita loan balance in this bracket is around TRY 15,000. Starting from 2020Q3, the segment of borrowers with large loan debt (above TRY 50,000) accounted for a significant portion of the increase in debt. The total debt balance in large loans increased substantially from 2020Q2 to TRY 259 billion as of March 2022 while its share in the total general-purpose loan balance rose to 59%. This rise is attributed to demand brought forward by the price increases in consumer goods and inflation expectations.

**Chart III.1.5: Number of General-Purpose Loan Borrowers, Outstanding Debt Distribution, and Per Capita Debt by Amount**


Sources: Risk Center, CBRT

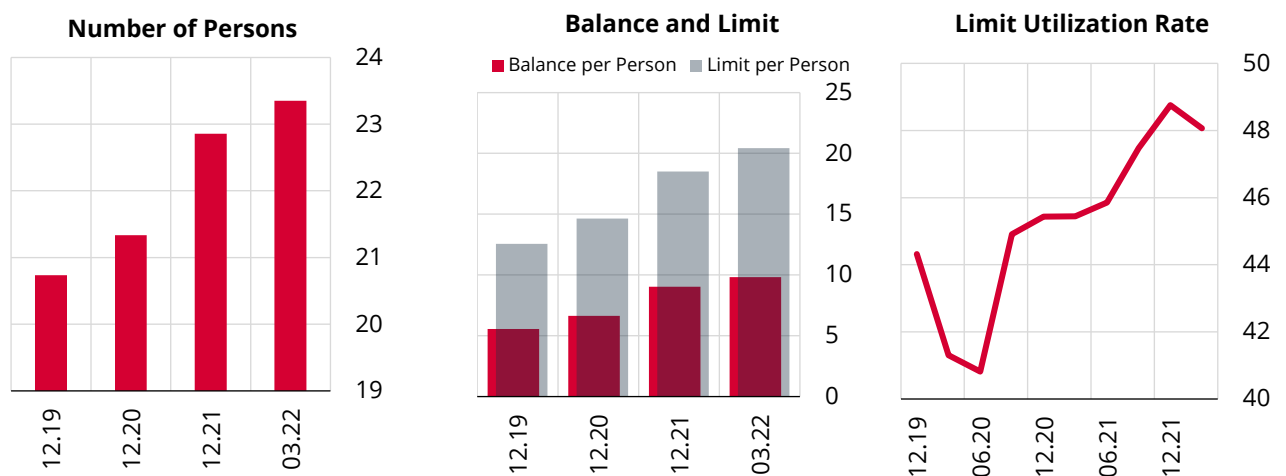
Last Observation: 03.22

Note: Amount brackets show the stock general-purpose loan debt amounts per person at all banks. The number of people is the total number of people in the relevant bracket. General-purpose loans under overdraft accounts and NPLs are excluded.

**The PCC limit utilization rate decelerated somewhat in 2022 due to the increases in card limits.**

Individuals' cash usage decreased while transactions with cards increased due to the pandemic. Accordingly, the number of people actively using cards rose steadily starting from the first half of 2020 (Chart III.1.6). In the same period, the card limit per customer displayed an upward movement in line with the income-based revisions in the limits.

The credit card debt balance per person is on the rise, becoming more evident after June 2021. The sharp increase in consumer demand following the accelerated vaccination rollout and the reopening, the rise in inflation, the ease of use due to digitalization, and the change in individuals' spending habits are all thought to have played a role in the developments in credit card balance. On the other hand, the limit utilization rate dropped to 40.8% in the second quarter of 2020 due to the full lockdown measures but increased to 47.5% in September 2021. Card limits rose substantially in 2022 in line with the revisions in wages. Accordingly, the limit utilization rate reached 49% at the end of 2021 before decreasing to 48.1% in March.

**Chart III.1.6: Number of Persons Actively Using PCC, Card Balance and Limit Per Customer, Card Limit Utilization Rate (Million People, TRY Thousand, %)**


Sources: Risk Center, CBRT

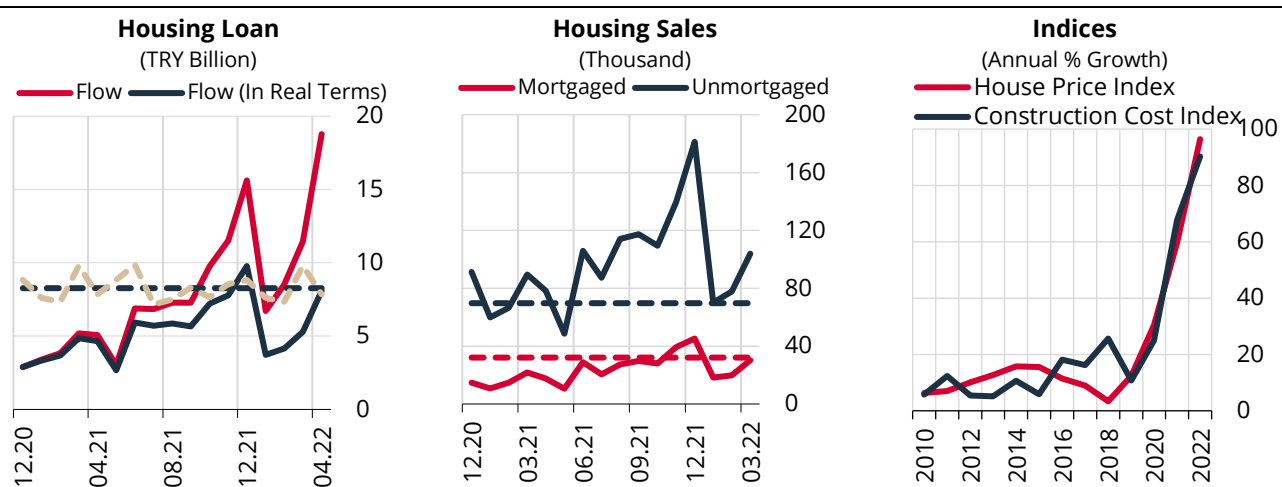
Last Observation: 03.22

Note: Chart excludes people with a credit card balance of zero.

### Housing loan utilization, which had accelerated somewhat at end-2021, was stable in early 2022 but revived as of March.

Housing loan utilization increased in nominal terms in the final quarter of 2021 amid attractively priced loan campaigns of state banks and upward expectations for housing prices, and declined in the first two months of 2022 before picking up again in March. When adjusted for housing price effects, housing loan utilization in real terms is close to its historical average (Chart III.1.7). This indicates that the nominal increase in housing loan amount is largely related to housing prices. In the current Report period, unmortgaged sales continued to constitute the majority of housing sales. In this period, housing prices rose substantially due to increased demand for unmortgaged houses, surging construction costs, and the slowdown in housing supply. Accordingly, annual price increases exceeded 90% as of February 2022. In the housing market in which similar price developments are seen on a global scale, housing prices are expected to normalize with the stability in the exchange rate owing to the liraization strategy, the improvement in inflation expectations, and the recovery in housing supply.

**Chart III.1.7: Housing Loans, Sales, and Price Developments**



Source: CBRT

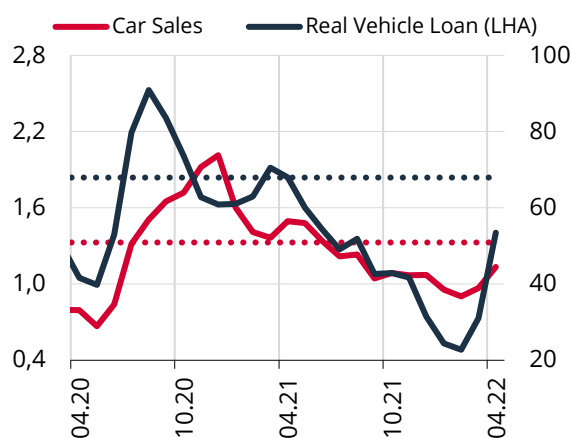
Last Observation: 04.22

Note: Housing loans are shown in terms of monthly flow disbursements. Dashed straight lines show the average real housing loan utilization and the related housing sales between 2012 and 2019 while the dashed and moving line shows the average housing loans in the relevant months of the 2012-2019 period. Data have been deflated by the house price index, and the March-April data has been estimated with the CPI.

### The weak outlook for vehicle loans and sales in 2022 ended by March.

Vehicle loan utilization, which had increased significantly in the early phase of the pandemic on the back of the easing in financial conditions, changing consumer preferences and vehicle price developments, presented a relatively weak outlook in the current Report period (Chart III.1.8). Coupled with the effect of cumulative increases in vehicle prices, the real vehicle loan utilization remains below its historical average. Restrictive macroprudential measures introduced in mid-2021 were influential in this development. On the other hand, the increase in vehicle loan utilization is attributed to the regulation raising the threshold values in February 2022. In March 2022 following this regulation, vehicle loan utilization posted a rapid nominal growth (Credit Developments Chart IV.1.6) but this growth remained partially limited when adjusted for vehicle price effects. In the same period, new vehicle sales also increased due to this regulation. On the other hand, the number of vehicles whose ownership changed hands (used car sales) decreased significantly in the first quarter of 2022 compared to end-2021, and converged to long-term averages as well as to the levels in the first quarter of 2021 where lockdown measures were intensive (Chart III.1.9).

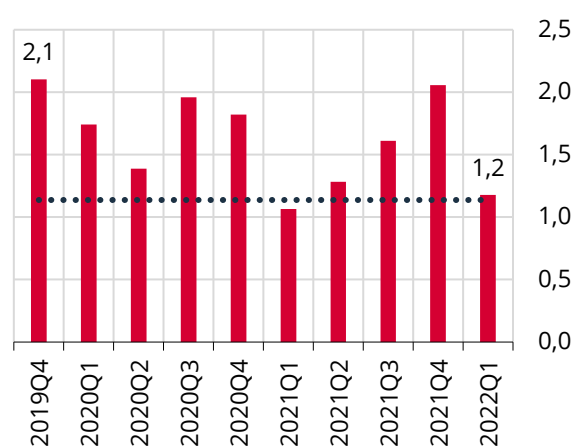


**Chart III.1.8: Vehicle Loan Disbursements and New Car Sales** (Thousand, TRY Billion, 3-Month MA)

Sources: ODD, BRSA

Last Observation: 04.22

Note: Data for monthly flow vehicle loans of banks and financing companies, and new car sales have been used. Deflated by the vehicle prices sub-index of the CPI. Dashed lines show the average real vehicle loan disbursements and car sales between 2012 and 2019.

**Chart III.1.9: Number of Used Car Sales** (Million Units)

Source: TURKSTAT

Last Observation: 03.22

Note: Used car sales refer to vehicles whose ownership has changed hands once or more through public notaries. Shows the quarterly sums of the numbers of vehicles changing hands. Dashed line shows the average number of used car sales between 2012 and 2019 in quarterly periods.

**The strong growth trend in household financial assets was maintained.**

The ratio of household financial assets to GDP increased by 8 percentage points to 55% in the last Report period (Table III.1.2). While the nominal amount increase in FX deposits was driven by exchange rate developments, the USD equivalent of FX and precious metal deposits declined as a result of individuals' shift to the KKM since December 2021, and TL deposits increased strongly. Households also showed strong interest in non-deposit financial assets in this period.

**Table III.1.2: Household Financial Assets**

	03.21		09.21		03.22		6-Month Growth (Annualized)
	TRY Billion	Ratio to GDP	TRY Billion	Ratio to GDP	TRY Billion	Ratio to GDP	
<b>Total Assets</b>	<b>2,690.7</b>	<b>50.2</b>	<b>3,033.0</b>	<b>47.4</b>	<b>4,310.4</b>	<b>55.5</b>	<b>102.0</b>
TL Savings Deposits	900.4	16.8	1,069.8	16.7	1,248.6	16.1	36.2
FX Savings Deposits	910.8	17.0	1,011.2	15.8	1,615.9	20.8	155.4
- (USD Billion)	109.3		114.4		110.3		
Precious Metal Deposits	258.4	4.8	272.2	4.3	441.2	5.7	162.7
- (USD Billion)	31.0		30.8		30.1		
Bonds and Bills	61.2	1.1	70.3	1.1	107.3	1.4	133.1
Mutual Funds	262.5	4.9	315.5	4.9	479.6	6.2	131.1
Pension Mutual Funds	150.2	2.8	168.4	2.6	250.6	3.2	121.5
Other Mutual Funds	112.4	2.1	147.1	2.3	229.0	2.9	142.4
Equity Securities	238.8	4.5	226.9	3.5	344.3	4.4	130.1
Repo	5.7	0.1	4.5	0.1	7.0	0.1	134.3
Currency in Circulation	52.8	1.0	62.5	1.0	66.4	0.9	12.9

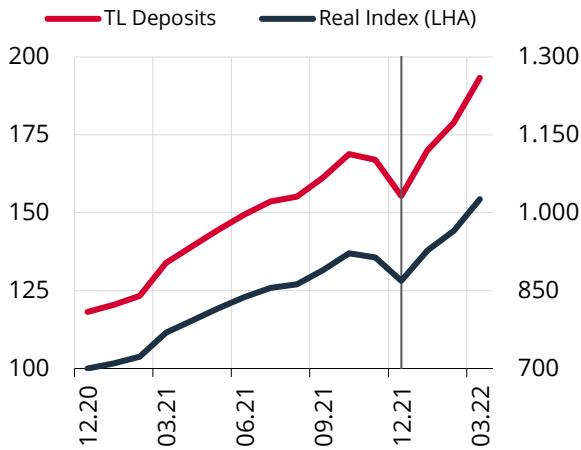
Sources: CBRT, MKK, PMC

Note: Month-end exchange rates have been used. Pension mutual funds show the total funds of participants in the Private Pension System (PPS) and the Auto Enrollment System (AES), minus the state contribution. Deposits refer to resident real persons' deposits.

Households' TL deposit balances, which had increased markedly since February 2021, has also maintained this uptrend since the year end when the KKM was introduced (Chart III.1.10). The amount breakdown of TL

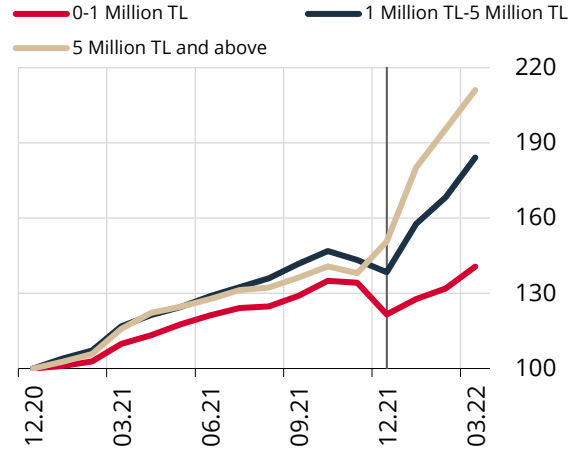
deposit growth shows that the TL deposit preference is broad-based across all brackets, with the growth in large-amount deposits being more significant (Chart III.1.11). This is deemed to be driven by the preferences of depositors who have shifted from FX deposits to TL deposits following the introduction of the KKM scheme.

**Chart III.1.10: TL Savings Deposits (TRY Billion, Index: 12.2020=100)**



Source: CBRT Last Observation: 03.22  
 Note: Deposits of resident real persons are depicted. The real index has been obtained by adjusting the monthly change in deposits for the CPI. The vertical line marks the exchange rate movement in December 2021.

**Chart III.1.11: TL Savings Deposits by Amount Breakdown (Index: 12.2020=100)**

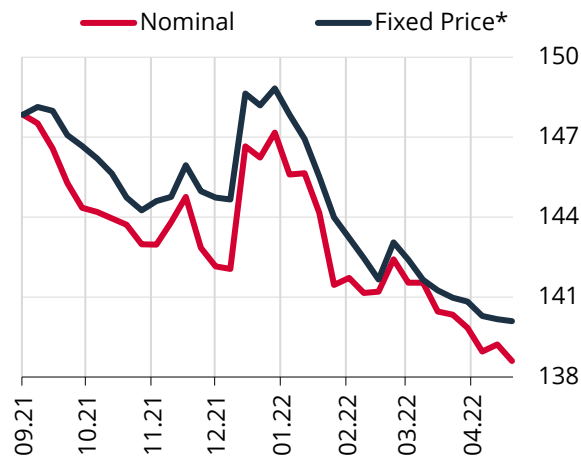


Source: CBRT Last Observation: 03.22  
 Note: Deposits of resident real persons. The vertical line marks the exchange rate movement in December 2021.

**Households' FX deposit preference weakened in the last Report period following the introduction of the KKM scheme, and the dollarization rate decreased.**

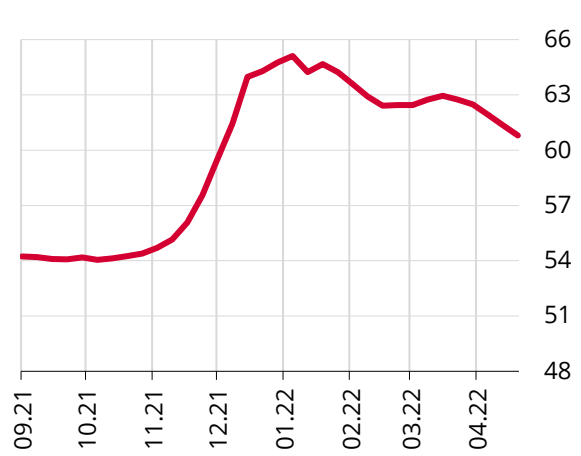
Households' FX deposit and dollarization tendency increased somewhat in the last quarter of 2021 but declined sharply starting from the year end (Charts III.1.12 and III.1.13). Individuals' preference for the KKM is an important driver of the decline in FX deposits. This decline is expected to continue on the back of the renewal of accounts due by end-March 2022 to a large extent and the new arrivals in the KKM scheme. It is projected that households' portfolio preferences for TL deposits will be further reinforced and liraization of household assets will strengthen on the back of the improvement to be achieved in inflation and inflation expectations.

**Chart III.1.12: FX Deposits Developments (USD Billion)**



Source: CBRT Last Observation: 04.22  
 Note: FX deposits refer to resident real persons' deposits, including precious metal accounts. \* For the fixed price, the parity between exchange rates has been taken as constant.

**Chart III.1.13: Dollarization Rate (%)**

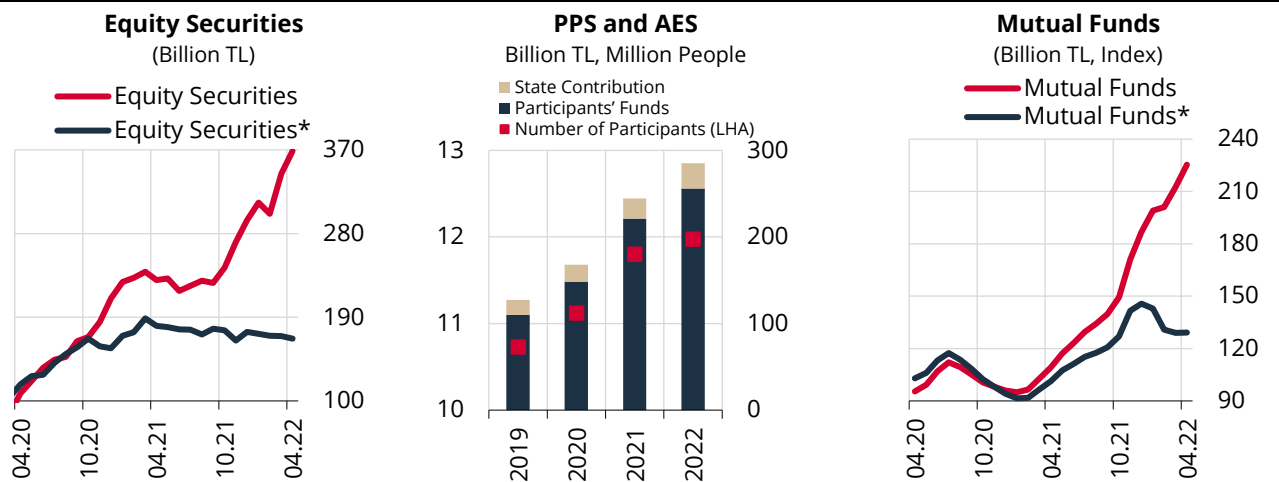


Source: CBRT Last Observation: 04.22  
 Note: Shows the dollarization tendency of resident real persons in 4-week MA terms.

**The upward trend in households’ non-deposit financial assets continues.**

In the last Report period, the equity securities portfolio of households increased in tandem with the equity securities index (Chart III.1.14). In the same period, the equity securities portfolio adjusted for the index price effect registered an almost flat movement in real terms. The sound growth in individuals’ equity securities portfolios is evaluated to be a positive development as an alternative investment to FX deposits becomes widespread among households. Funds in private pension and auto enrollment systems (PPS and AES), which are among the important household asset items, remained on the rise. The inclusion of individuals under the age of 18 in the PPS framework and the raising of the state contribution to 30% from 25% are expected to affect the development in funds. The rise in the number of PPS participants is deemed to be a favorable development in terms of households gaining the long-term saving habit and financial literacy becoming broad based. On the other hand, while the upward trend in households’ mutual funds was maintained, they decreased slightly in real terms in 2022 due to price developments.

**Chart III.1.14: Household Non-Deposit Asset Developments**



Sources: MKK, BIST, PMC

Last Observation: 04.22

Note: "Equity Securities\*" portfolio is in real terms, and calculated by adjusting for changes in the BIST 100 index value.

Aggregated PPS and AES data are shown, and the number of participants has been singled out. In mutual funds, December 2019 has been indexed to 100, and data refers to 3-month MA. "Mutual Funds\*" has been obtained by adjusting the mutual funds for the CPI.

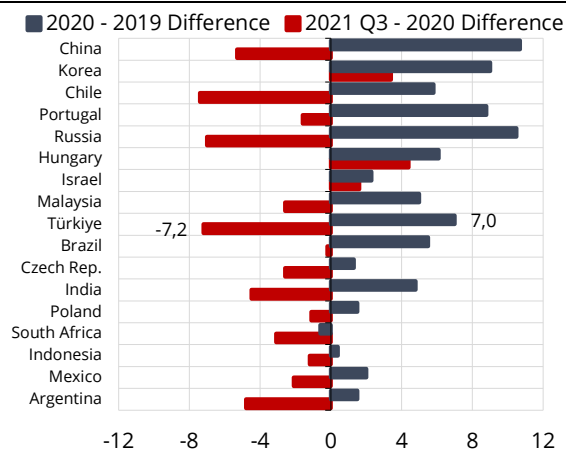
## III.2 Corporate Sector Developments

The corporate sector indebtedness, which globally increased due to pandemic measures, declined in 2021 with the gradual lifting of pandemic restrictions and the recovery in economic activity.

Türkiye's corporate sector indebtedness is still moderate compared to peer countries.

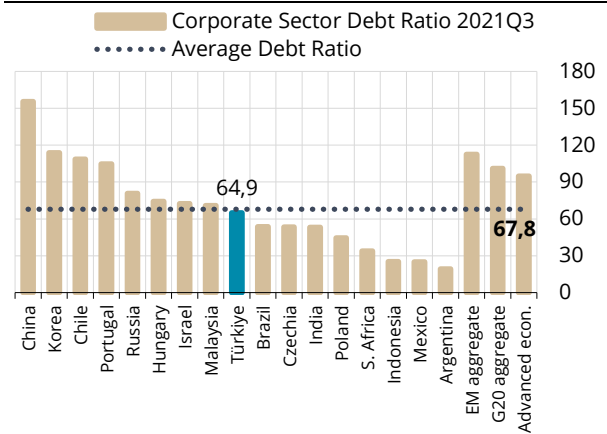
The low-cost financing facilities provided during the pandemic and increased indebtedness of the corporate sector globally started to be counter-balanced with the recovery in global economic activity after the re-opening and exit strategies from the expansionary policies related to the pandemic. In 2020, when the effects of the pandemic were felt most severely, the debt ratio (financial debt/GDP) of the corporate sector in peer countries increased by 4.7 percentage points on average compared to 2019, while in Türkiye it increased by 7 percentage points thanks to stronger and more inclusive support measures. With the acceleration of vaccination and lifting of pandemic measures afterwards, the global economic activity recovered limiting the rise in corporate sector indebtedness ratios. As a matter of fact, while the corporate sector indebtedness ratio in peer countries decreased by 2.1 percentage points in 2021 compared to 2020, it decreased by 7.2 percentage points in Türkiye (Chart III.2.1). In the third quarter of 2021, Türkiye's corporate sector financial debt/GDP ratio (64.9%) was below the indebtedness averages of peer countries (67.8%) and EMEs (112.5%) (Chart III.2.2). In this indicator, Türkiye is the median country among peer countries in the sample.

**Chart III.2.1: Change in Corporate Sector's Financial Debt/ GDP Ratio (% points difference)**



Source: BIS Latest Observation: 09.21  
Note: The difference values represent the changes between the third quarter values of 2020 and 2021 and the fourth quarters of 2019 and 2020. For 2019-2020, Malaysia and for 2020-2021Q2, Czechia have been calculated as the median countries.

**Chart III.2.2: Corporate Sector's Financial Debt/ GDP Ratio (%)**



Source: BIS Latest Observation: 09.21  
Note: The definition of total financial debt includes domestic and international loans and bond issues, as well as performing and non-performing loan receivables and loan interest discounts. The median value according to 2021Q3 values is shown in blue.

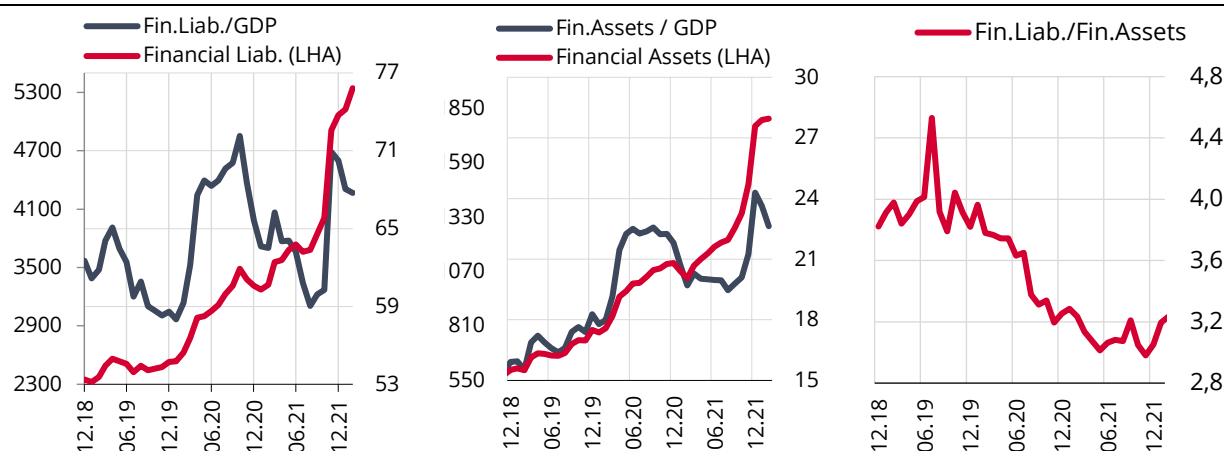
**Because of the exchange rate depreciation in the last quarter of 2021, the ratio of the corporate sector's financial assets and liabilities to GDP has slightly increased, but the ratio of financial liabilities to assets is close to the lowest level recorded over the last 10 years.**

In the current Report period, in addition to the increase in exchange rates, the cost burden stemming from the rise in commodity prices, particularly in energy, increased the financing needs and financial liabilities of corporates. While corporate assets were positively affected by the increase in exchange rates, rising turnover and profitability owing to strong economic activity have also supported assets. Although the financial leverage ratio (liabilities/assets) of the corporate sector slightly increased due to the exchange rate movement in November, it still maintains its historically low level and remains well below its pre-pandemic level (Chart III.2.3).

Financial liabilities of the corporate sector are predominantly composed of loans extended by domestic banks (Table III.2.1). In the current Report period, the amount of FX loans used by companies from domestic banks decreased in terms of FX, while FX loans used from abroad remained flat. However, due to

exchange rate developments in November and December 2021, the TL equivalent of FX loans increased. In this period, companies also obtained funds through issuing bonds abroad.

**Chart III.2.3: Corporate Sector's Financial Assets and Liabilities (Ratio, Billion TL)**



Source: CBRT

Latest Observation: 02.22

Note: Financial liabilities include the corporate sector's domestic and international loans, leasing, factoring debts and bond issuances. Financial assets include TL and FX deposits and securities, where direct capital investments abroad and export receivables are not included. Annual GDP values in monthly frequency are calculated by the CBRT. The latest GDP data is CBRT estimate.

**Table III.2.1: Corporate Sector's Financial Liabilities (Billion TL)**

	02.21		08.21		02.22		6 Month Growth (Annualized)
	Billion TL	Ratio to GDP	Billion TL	Ratio to GDP	Billion TL	Ratio to GDP	
<b>I. Domestic Loans (i+ii)</b>	<b>2,535.0</b>	<b>48.5</b>	<b>2,757.6</b>	<b>44.2</b>	<b>3,763.2</b>	<b>47.7</b>	<b>86.2</b>
i. TL	1,444.5	27.6	1,553.7	24.9	1,862.0	23.6	43.6
A. Bank	1,364.1	26.1	1,460.4	23.4	1,766.1	22.4	46.2
B. NBFI	65.2	1.2	77.7	1.2	75.3	1.0	-6.1
C. Bonds Issued	15.2	0.3	15.6	0.3	20.6	0.3	74.4
ii. FX (FX Indexed Loans included)	1,090.5	20.9	1,203.9	19.3	1,901.2	24.1	149.4
USD Terms (A+B+C)	148.0		145.0		137.5		-10.1
A. Bank	141.1	2.7	138.6	2.2	130.1	1.6	-11.9
B. NBFI	6.1	0.1	5.6	0.1	5.2	0.1	-14.0
C. Past-Due Loans Taken Over by SDIF	0.7	0.0	0.7	0.0	0.7	0.0	-0.3
<b>II. External Loans</b>	<b>731.0</b>	<b>14.0</b>	<b>868.1</b>	<b>13.9</b>	<b>1,439.6</b>	<b>18.3</b>	<b>175.0</b>
USD Terms	99.2	0.0	104.5	0.0	104.1	0.0	-0.8
<b>III. Bonds Issued Abroad</b>	<b>55.6</b>	<b>1.1</b>	<b>84.0</b>	<b>1.3</b>	<b>140.5</b>	<b>1.8</b>	<b>180.1</b>
USD Terms	7.5	.	10.1	.	10.2	.	1.0
<b>Total Financial Debt (I+II+III)</b>	<b>3,321.6</b>	<b>.</b>	<b>3,709.7</b>	<b>.</b>	<b>5,343.2</b>	<b>.</b>	<b>107.5</b>
For Info: Total Loans (Billion USD)	254.7	.	259.6	.	251.7	.	-6.0
<b>Total Financial Debt / GDP (%)</b>	<b>63.5</b>	<b>.</b>	<b>59.5</b>	<b>.</b>	<b>67.7</b>	<b>.</b>	<b>8.2</b>

Source: CBRT, BRSA

Latest Observation: 02.22

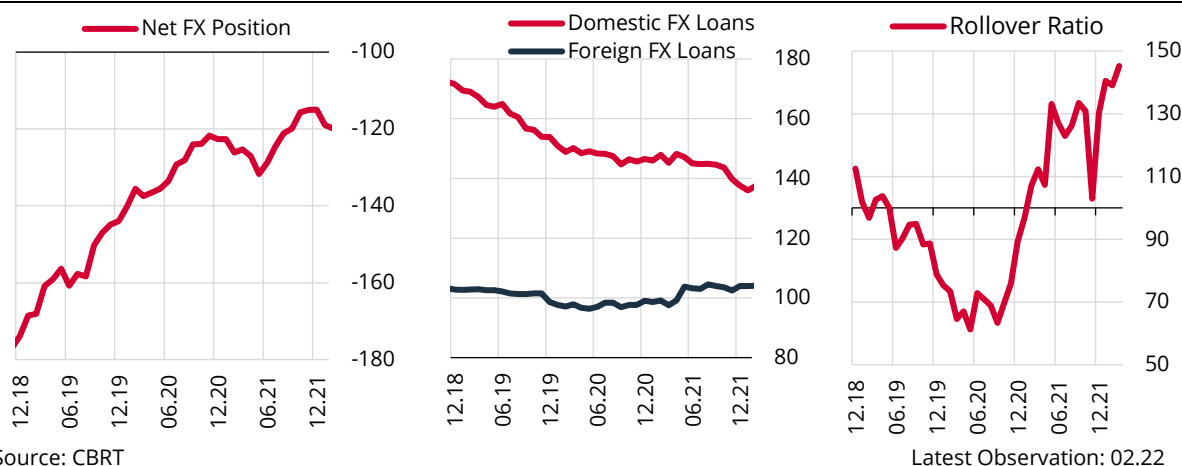
Note: The ratio column shows the ratio of the related item to GDP. The last column reflects annualized 6-month change between 08.21 – 02.22 using the compound calculation method.

**While the FX-denominated financial debt of the corporate sector decreased due to FX loans used from domestic banks, the improvement in the net FX short position continued.**

The improvement that has been observed in the corporate sector's net FX short position since 2018 continued in the current Report period as well, and the net FX position decreased to USD 119.9 billion. Despite the slight decrease in FX assets and the rise in import payments over the last few months, the FX

short position further decreased on the back of the decrease in FX loan utilization and the increase in companies' direct capital investments abroad. The corporate sector companies' total FX loan debt to domestic and foreign banks decreased by approximately USD 33 billion compared to the end of 2018. In the current Report period, FX loans used from domestic banks decreased by another USD 7.1 billion due to the cautious stance adopted by companies against exchange rate volatility, while external FX loans remained flat. Despite a slight decrease in November, firms' external debt rollover ratio maintained its strong trend above 140% throughout the reporting period (Chart III.2.4). This is considered to be a positive development with respect to companies' capacity to access external finance and the flow of foreign funds to Türkiye amid increasing global volatility.

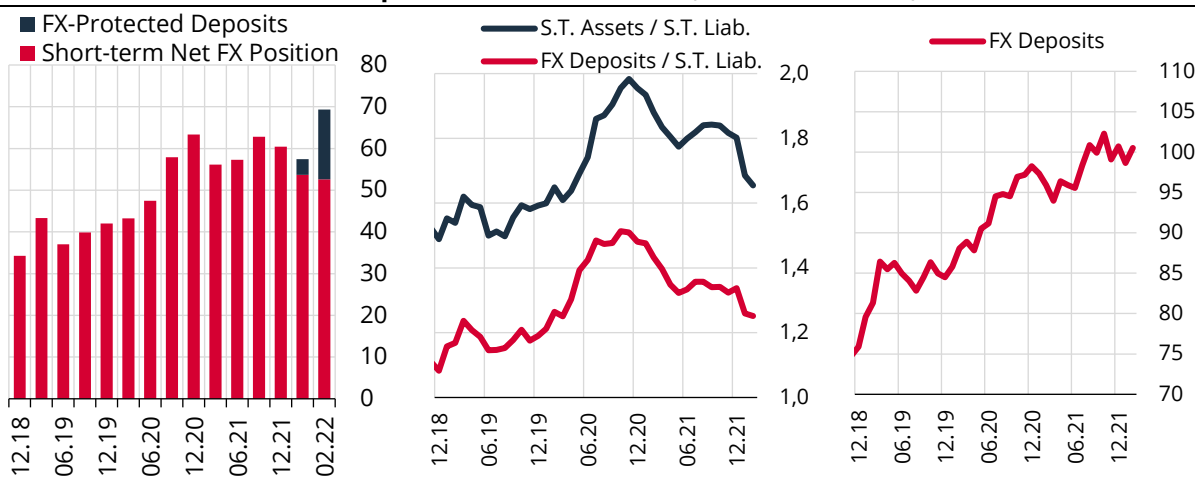
**Chart III.2.4: FX Position, FX Liabilities, External Debt Rollover Ratio (Billion USD, Ratio)**



Source: CBRT

Note: External debt rollover ratio shows the ratio of the total amount of external borrowing in a 6-month window to the total debt repayment in the same period. External debt rollover ratio is as of March 2022, and other data are as of February 2022.

**Chart III.2.5: Indicators of Corporate Sector's FX Risk (Billion USD, Ratio)**



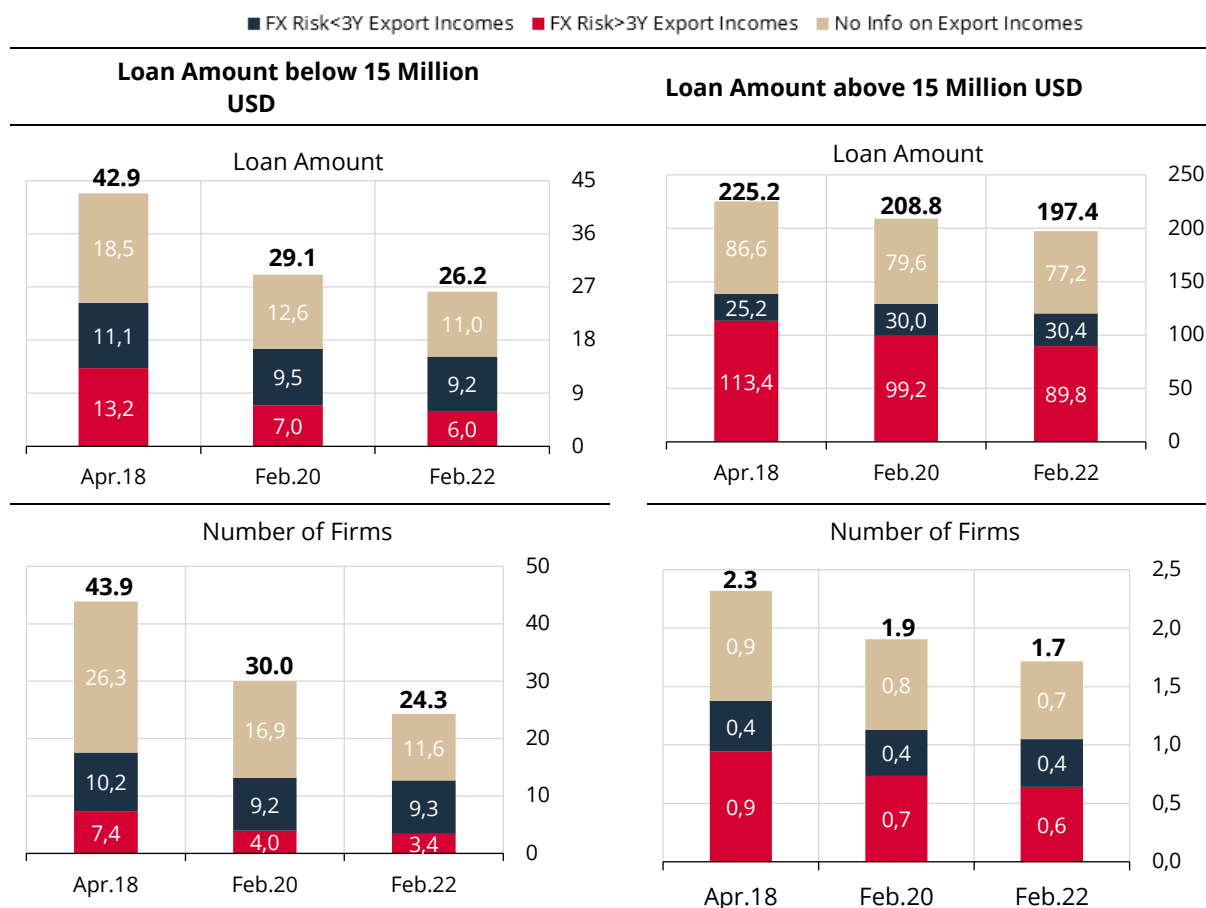
Source: CBRT

Note: FX deposits are the total amount of FX deposits held by resident real sector companies in domestic and foreign financial institutions. In May 2021, the short-term External Debt Stock item was revised as the reporting method for foreign trade payments changed, the ownership definition of securities was harmonized with international methodology and non-residents' deposits were separated into short and long-term deposits.

The positive outlook in the corporate sector's currency risk indicators continues. The short-term net FX long position of corporate sector firms, which took an uptrend in 2020 and exceeded USD 63 billion, decreased to USD 52.6 billion in February 2022 (Chart III.2.5). As a result of this development, the ratio of companies' short-term assets to their short-term liabilities and the ratio of FX deposits to short-term liabilities slightly decreased. This decline was driven by the significant change in companies' deposit preferences on the back of the CBRT-supported FX-protected deposit accounts that were offered to legal persons as of 11 January 2022. Companies reduced their FX deposit accounts and converted them to FX-protected deposit accounts

on the back of facilities such as no withholding tax deductions shall be made on the interest to be paid to FX-protected deposit accounts and profit share to be paid to participation accounts, valuation differences shall be exempt from corporate tax in case companies convert their foreign currency and gold recorded on their balance sheets as of 31 December 2021 into TL, and the interest and profit shares they will receive at the end of maturity shall be exempt from corporate tax. The deposit scheme in question provides protection for account holders against changes in exchange rates.

**Chart III.2.6: Firms' FX Loan Balance Compared to Imports Income and Number of Firms** (Billion USD, Thousand firms)



Source: Risk Center, CBRT, TURKSTAT

Latest Observation: 02.22

Note: Export revenues are the sum of the company's end-year revenues from exports of goods over the last three years starting from the relevant date. Firms with no export income data show firms that do not have export income records in the database, and these firms are likely to have revenues from exports of goods or FX-indexed income. FX loan debt includes loans extended from abroad via domestic banks. Direct loans from abroad are not included.

**While FX indebtedness of firms continued to decline, the downtrend in the number of firms using FX loans continued and the FX income profile of firms with FX loans improved.**

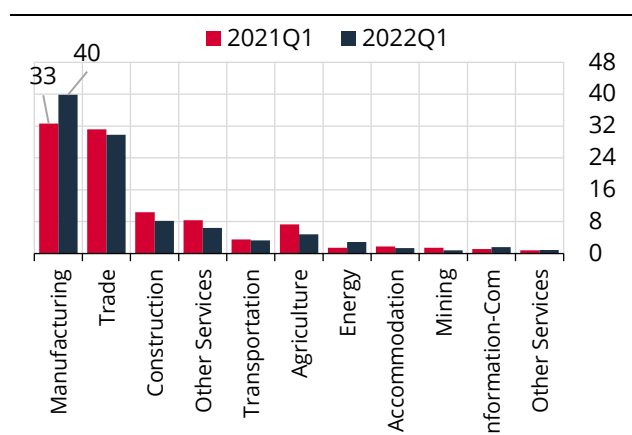
As a result of the amendment made in the Decree No. 32 on the Protection of the Value of Turkish Currency regarding the use of FX loans in May 2018 and the cautious stance adopted by companies and banks in exchange rate risk management after 2018, the use of FX loans by companies started to decline. The regulation associated the FX loan utilization of companies with FX risk of less than USD 15 million with their FX revenues over the last three years, as a result, the loan balance of companies with FX loan debts below USD 15 million decreased from USD 42.9 billion in April 2018 to USD 26.2 billion as of February 2022. In the same period, the loan balance of companies with FX loan more than USD 15 million, for which the regulation did not impose any restrictions, decreased from USD 225.2 billion to USD 197.4 billion (Chart III.2.6). In this period, the number of companies with FX loans significantly decreased in both groups. Moreover, the FX income profile of companies using FX loans showed a significant improvement. Among companies with available export data, the number of companies with FX risk balance exceeding their three-year export income and their share in the total decreased rapidly. The improvement observed in the export

profile of the group over USD 15 million, which is not subject to the regulation, is positive as it shows increasing efficiency of large-scale companies in currency risk management.

**Rising input costs due to commodity and energy prices significantly increased the use of TL loans for stock investments, raw material purchases and working capital needs in some sectors.**

The inflationary pressures stemming from freight, commodity and energy prices led to a rise in firms' production costs. In the first quarter of 2022, when price increases became more evident largely due to these reasons, firms' TL-denominated loan utilization increased compared to the same quarter of the previous year. A look into the sectoral breakdown of TL-denominated flow loans extended in the last three months reveals that the share of sectors that are more sensitive to commodity and energy prices has increased significantly compared to the previous year (Chart III.2.7). Over the last three months, TL loan growth particularly in the energy, information-communication, manufacturing industry, transportation and trade sectors, exceeded 100 percent compared to the same quarter last year (Chart III.2.8). Compared to the annual change in the same period of the previous year, the rise in loan utilization was significantly higher in this quarter.

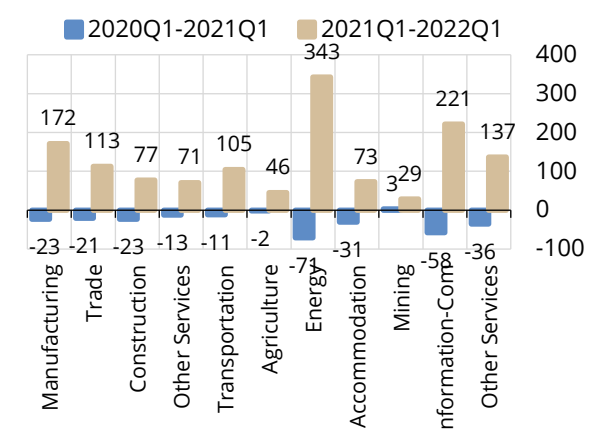
**Chart III.2.7: TL Flow Loans by Sectors (% Share)**



Source: CBRT

Latest Observation: 03.22

**Chart III.2.8: TL Flow Loan Growth (2020Q1-2021Q1, 2021Q1-2022Q1, % Change)**



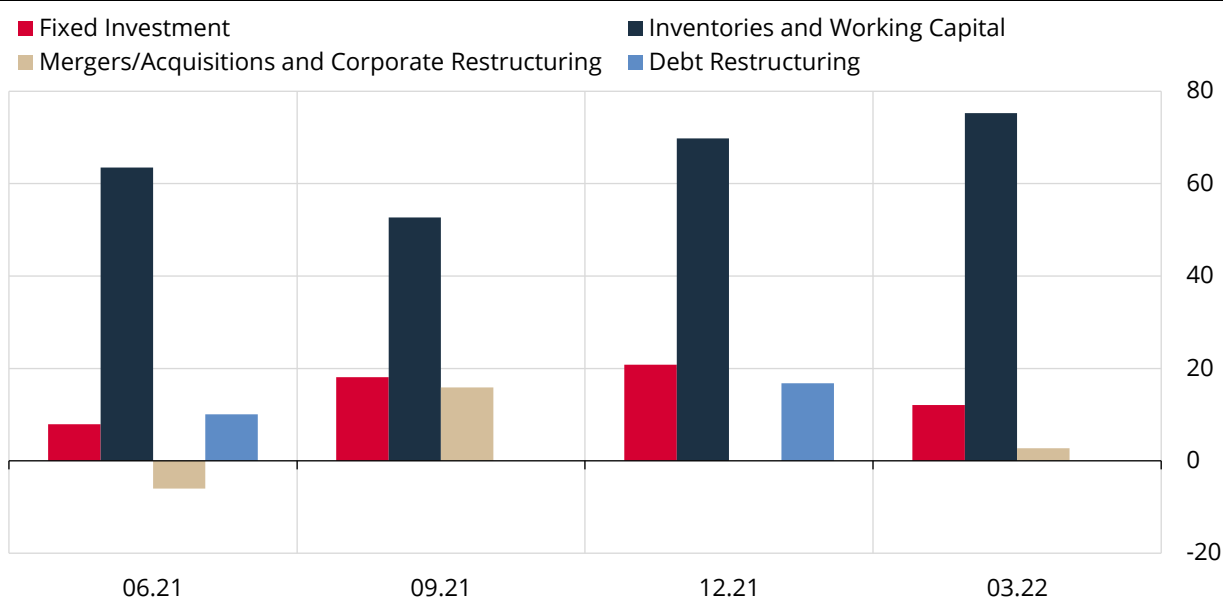
Source: CBRT

Latest Observation: 03.22

Note: Loans include TL loans used domestically or loans extended from abroad via domestic banks. The chart shows the distribution of sectors that have higher weight in the flow loan portfolio. The Other Services sector in the chart includes L- Real estate activities in NACE classification, M- Professional, scientific and technical activities, N- Administrative and support services activities, P- Education, Q- Health, R- Culture, arts, entertainment, recreation, sports and S- other services activities.

The results of the Bank Loans Tendency Survey (BLTS) show that firms' loan demands for working capital and inventory financing continued to increase after the second half of 2021 (Chart III.2.9). Moreover, the rise in firms' loan demand can also be attributed to financing need for precautionary inventories and raw material due to the uncertainty stemming from the Russia-Ukraine conflict.



**Chart III.2.9: Factors Affecting Firms' Loan Demand (Net % Change)**

Source: CBRT

Latest Observation: 03.22

Note: In the survey, banks evaluate all items compared to the previous quarter. While zero is the neutral level indicating no change compared to the previous period, a value greater than zero points to an increase compared to the previous period, and a value smaller than zero indicates a decrease compared to the previous period.

### **The uptrend in the corporate sector' financial assets continues to increase mainly due to TL deposits.**

Although the increase in assets was driven by the rise in TL deposits, companies also invested in public and private sector bonds in this period. On the FX deposits side, the TL equivalent of FX deposits increased due to the increase in exchange rates, nevertheless, firms' FX deposits in US dollars decreased in the current Report period. The FX-protected deposit product, which was introduced for legal persons in January 2022, is believed to have been effective in reducing the dollarization tendency of companies and converting FX deposits into TL deposits (Table III.2.2). While TL deposits of corporate sector firms maintained their uptrend in nominal and real terms, the increase in TL deposits accelerated as of January with the support of FX-protected deposits. FX deposits, which were recorded at USD 85 billion before the implementation of FX-protected deposits, decreased to USD 69.7 billion in early March. While FX-protected deposits limit companies' speculative FX demand on the one hand, on the other hand, they continue to offer protection against exchange rate volatility to the companies in need. Even though the accounts that have been converted from FX deposits to TL deposits in the scope of the FX-protected deposit scheme had an effect on the rise in TL deposits of corporate sector firms, the developments in total deposits imply that firms have increased their deposit assets exceeding the said conversion (Chart III.2.10).

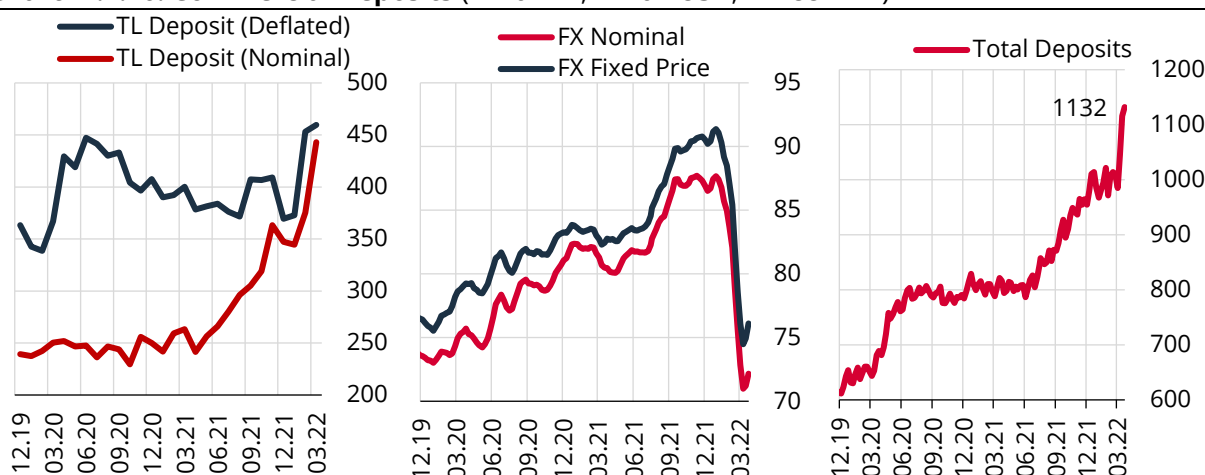
**Table III.2.2: Corporate Sector's Financial Assets**

	03.21		09.21		03.22		6-month Growth (Annualized)
	Billion TL	GDP Share	Billion TL	GDP Share	Billion TL	GDP Share	
<b>Total Assets</b>	<b>1,099</b>	<b>19</b>	<b>1,331</b>	<b>21</b>	<b>2,061</b>	<b>20</b>	140.0
TL Commercial Deposit	476	8	528	9	880	8	178.5
FX Commercial Deposit	612	11	741	11	1,084	11	114.1
-(Billion USD)	80	0	83	0	74	0	-21.2
Securities	11.6	0.1	10.7	0.22	16.8	0.17	147.1
Public Debt Instruments	*	*	11.6	0.01	25.5	0.01	383.0
Private Sector Debt Instruments	*	*	39.9	0.06	54.9	0.05	89.2
Total Assets / GDP	20.5		20.7		24.9		44.4

Source: CBRT

Latest Observation: 03.22

Note: The share column shows the ratio of the relevant item to GDP. The last column reflects the annualized value of the 6-month change between 09.21 – 03.22 using the compound calculation method. Total Assets/GDP in this column is the difference between the two ratios for the current Report period. In the securities item, the data date is as of February 2022. (\*) sign on the table indicates that there is no data for the relevant breakdown/detail.

**Chart III.2.10: Commercial Deposits (Billion TL, Billion USD, 4-week MA)**

Source: CBRT

Latest Observation: 03.22

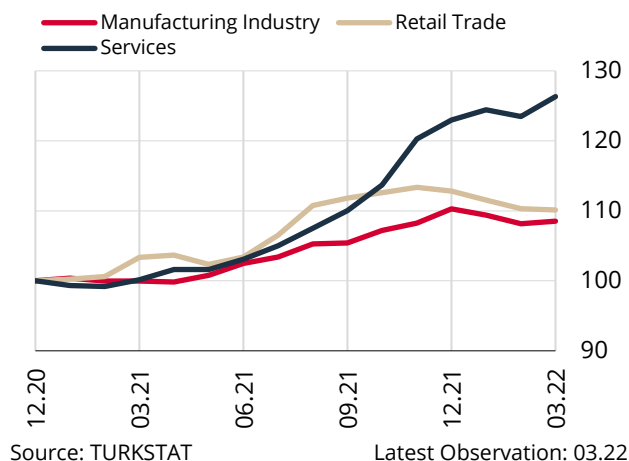
Note: TL deposits (deflated) are obtained by deflating nominal deposits by inflation according to the CPI. Assuming a fixed price for FX deposits; EUR/USD parity and gold ONS values are fixed at the rate recorded on 30.07.2020 and the values on the chart are 4-week moving average values. Total deposits reflect the total of TL deposits and FX deposits adjusted for exchange rates and precious metals obtained from weekly data.

**Corporate sector turnover and confidence indices, which showed a significant improvement throughout 2021, slightly decreased at the end of the year due to increased production costs stemming from unhealthy price formations in exchange rates and inflationary pressures, as well as moderate domestic demand.**

Although the deflated manufacturing industry turnover index has recently decreased due to rising input costs, uncertainties caused by the war and partial slowdown in domestic demand, it remains well above pre-pandemic levels thanks to strong export volume (Chart III.2.11). While transportation and storage costs in the trade sector were affected by increments in energy costs, the turnover index of the trade sector slightly decreased due to the weakening in domestic demand after the price increases in this sector. The services sector turnover index, on the other hand, continued its recovery trend that it had caught in summer with the complete removal of pandemic restrictions, and diverged favorably from other sectors.

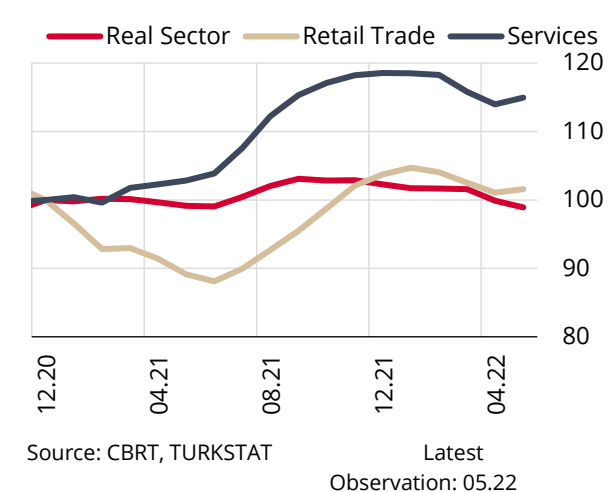
Corporate sector confidence indices also showed a trend similar to turnover indices in the current Report period (Chart III.2.12).

**Chart III.2.11: Corporate Sector Sales Turnover Indices** (Seasonally and Calendar Effect-Adjusted, Deflated, 3-month MA)



Note: While deflating, the weighted costs in services and manufacturing industry sectors have been considered. Commercial real turnover has been calculated by using retail sales volume index. In all series, the value for December 2020 was fixed at 100.

**Chart III.2.12: Corporate Sector Confidence Indices** (Seasonally Adjusted, 3-month MA)

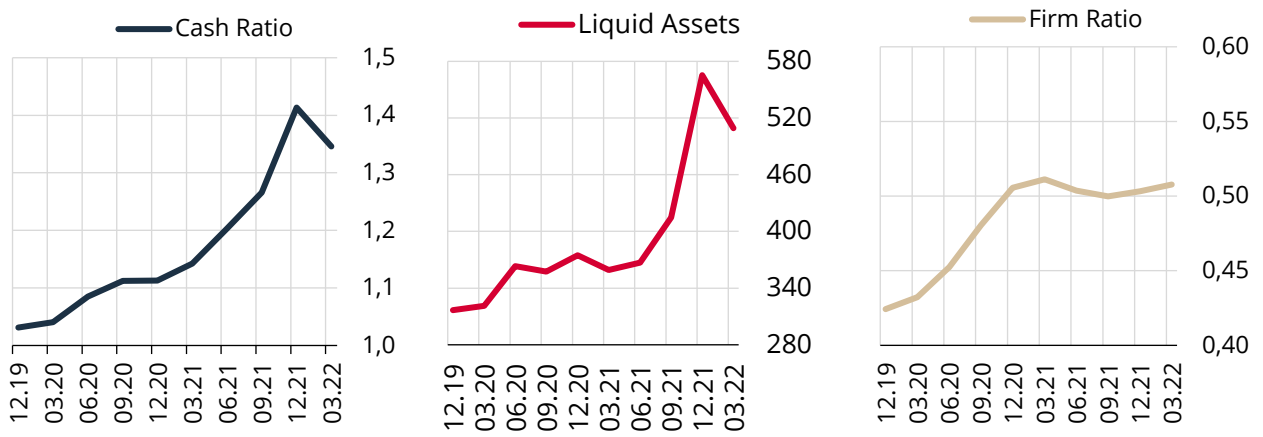


Note: In all series, the value for December 2020 was fixed at 100.

### The positive outlook in liquidity, profitability and debt service indicators is maintained in corporates listed on BIST.

The uptrend in cash ratio showing the ratio of firms' short-term debts covered by firms' liquid assets, which started during the pandemic, continued till the end of 2021, and maintained its strong outlook in the first quarter of 2022 (Chart III.2.13). Due to the uncertainty created by the pandemic, firms tended to hold liquid assets with a precautionary motive, and this trend continued to rapidly increase in the final quarter due to the rise in exchange rates, increase in production costs and inflationary pressures, and then slightly decreased in real terms in the first quarter of 2022. This decrease is attributed to the appreciation in exchange rates in the first few months of the year as well as the decrease in the FX deposits stemming from the FX-protected deposit scheme. On a firm basis, the ratio of firms with a cash ratio higher than the threshold value of 0.20 to the total number of firms, which increased during the pandemic, was balanced at 50%. Amid lingering uncertainties regarding the pandemic, risks stemming from geopolitical risks such as the Russia- Ukraine conflict and disruptions in supply chains, having strong liquidity structures are important for firms to be prepared against any exchange rate shocks or shocks that may arise from inability to access to funds.

**Chart III.2.13: Firms' Activity and Liquidity Indicators** (Billion TL, inflation adjusted, Ratio)



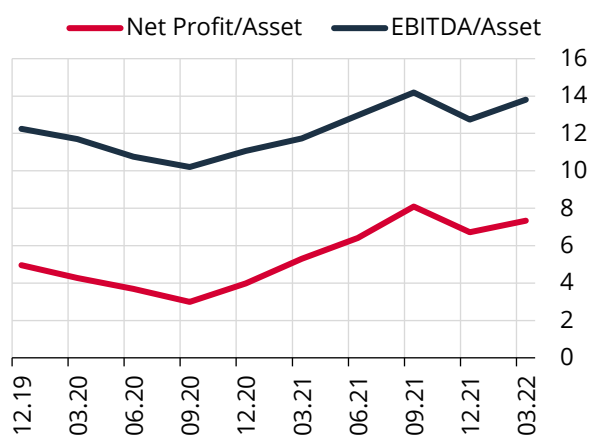
Source: FINNET

Latest Observation: 03.22

Note: As of the latest data, 203 corporates were included in the analysis. The cash ratio is the ratio of the sum of liquid assets and securities to the short-term debt. The firm ratio gives the ratio of firms with a cash ratio above 20% to the total number of firms. Liquid assets are adjusted for CPI by taking 3-month moving average.

The profitability of corporates listed on the BIST, which increased throughout 2021, slightly decreased in the last quarter of the year due to the uncertainties in exchange rates, global commodity prices and inflation. In the first quarter of 2022, the profitability ratios increased again due to exports, which remained strong despite rising input costs, the increase in the value of existing inventories and tax advantages offered by the FX-protected deposit product (Chart III.2.14). Meanwhile, profitability developments differed across sectors because firms in some sectors were not able to reflect rising production costs on their final prices as the PPI was higher than the CPI. As a matter of fact, while the iron and steel sectors were positively affected by the increase in commodity prices and the depreciation in exchange rates, food producers and retailers were adversely affected by the foreign exchange position and competition in the sector. In the current Report period, the share of companies that declared positive EBITDA in the total number of companies remained the same, while the share of companies that declared positive net profit in the total reached 93% (Chart III.2.15).

**Chart III.2.14: BIST Firms' Profitability Indicators** (% Ratio)

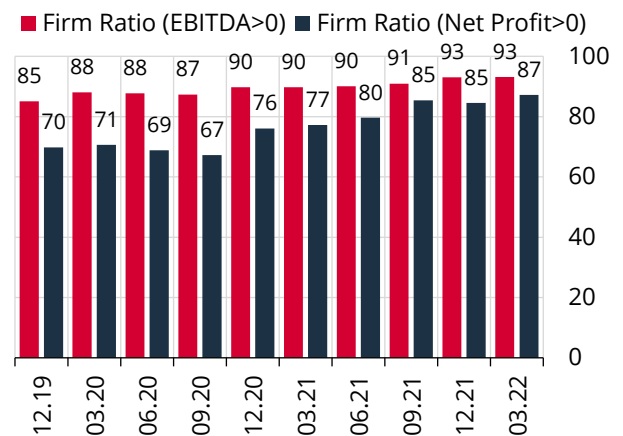


Source: CBRT

Latest Observation: 03.22

Note: EBITDA: Net Profit + Financial Expenses + Tax Expenses + Depreciation and Amortization Costs. 203 corporates were included in the analysis.

**Chart III.2.15: Distribution of BIST Firms' Profitability** (%)



Source: CBRT

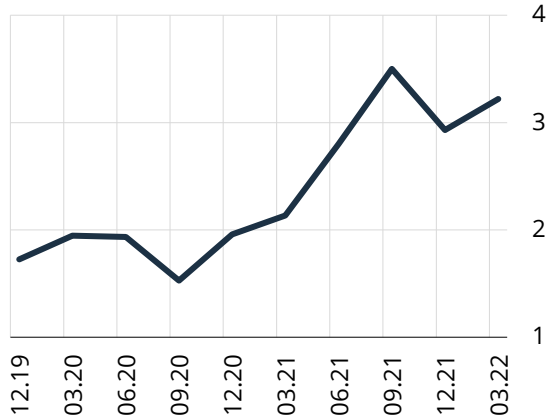
Latest Observation: 03.22

Note: The firm ratio shows the ratio of firms with positive EBITDA and net profit margin to total number of firms.

Financing expenses, which increased due to exchange rate developments in the last quarter of 2021, led to a slight deterioration in indicators of BIST companies' capability to pay their debts, but increased in the first quarter of 2022 with the rise in firms' profitability (Chart III.2.16). Firms' operating profits are strong

enough to cover the financing costs of approximately 3 years, and this ratio is well above the pre-pandemic levels. Moreover, 73% of firms have a financial expense coverage ratio (FECR) above the 1.5 level, which is accepted as the threshold for experiencing financial difficulties in the related literature (Chart III.2.17). Despite a decrease in the weighted average FECR over the last quarter, more firms continued to exceed the threshold and the probability of firms experiencing financial difficulties decreased. On the other hand, in this period when many geopolitical and currency-related shocks were experienced, the firm's success in maintaining their balance sheet indicators strong have limited possible risks with respect to banking sector's asset quality outlook.

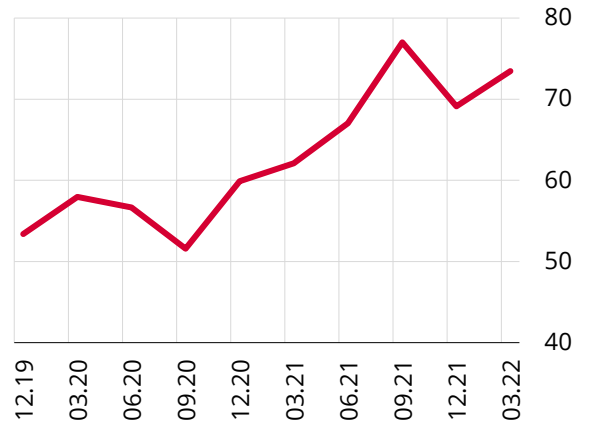
**Chart III.2.16: BIST Firms' Financial Expenses Coverage Ratio**



Source: CBRT Latest Observation: 03.22

Note: Financial Expenses Coverage Ratio (FECR)= EBITDA / Financial Expenses. 203 corporates have been included in the analysis.

**Chart III.2.17: Firms' Share in Financial Expenses Coverage Ratio (%)**



Source: CBRT Latest Observation: 03.22

Note: Firm share is the ratio of firms with a financial expenses coverage ratio greater than 1.5 to total number of firms. 203 corporates have been included in the analysis.

## Box III.2.1

### Net Exporters' Productivity and Profitability Performances

In this study, the firm-based productivity indicator has been calculated to present historically to what extent net exporting firms differ from other firms in terms of productivity. In addition, the comparative outlook of net exporting firms compared to other firms with respect to firm-based added value and balance sheet soundness has been analyzed by using profitability and liquidity indicators. The findings indicate that historically, the productivity, profitability and liquidity indicators of net exporting firms have been consistently higher than other firms operating in the same sector.

Increasing production, exports, employment and productivity are important for achieving sustainable growth and sustaining price stability. In this context, the CBRT has launched targeted loan programs such as Advance Loans with Investment Commitment and TL rediscount loans since 2020, and has taken important steps to make sure that loans are used in TL and in accordance with their purpose in activities supporting investments and exports. In these loan programs, in order to support sustainable current account balance, significant advantages have been provided to net exporting companies and companies committing to increase their exports, and loan conditions were eased so that companies could benefit from these loans. Supporting net exporting companies will not only make a positive contribution to the external balance, but also provide significant added value and productivity increase in the country.

#### Data and Method

In Türkiye, the majority of the export volume is carried out by companies operating in the manufacturing industry and trade sector. To achieve wide coverage, this study focuses on companies operating in these sectors and examines manufacturing and trade sectors separately in order to control for sectoral differences. The study analyzes productivity, profitability and liquidity performances of exporting or export-oriented companies in comparison with other companies using micro data at firm level and covers the years between 2009 and 2020.

The representativeness of the sample consisting of 421,000 companies operating in the manufacturing industry (Part C) and trade (Part G) sectors out of 860,000 companies that declared balance sheets for 2020 are set out in Table III.2.1.1. Accordingly, manufacturing and trade sector firms, which make up about half of the total number of firms, hold the 90 percent of the foreign trade volume. Moreover, companies operating in these sectors constitute approximately 50 percent of aggregate employment, while their net sales make up 75 percent of the population.

**Table III.2.1.1: Share of Manufacturing and Trade Companies in Total with Respect to Selected Indicators (%)**

Year	Sector	Exports	Imports	# of Labors	Net Sales
2010	Manuf. (Group C)	56.5	56.6	32.4	30.2
	Trade (Group C)	38.5	36.7	20.6	43.9
	Others	5.0	6.7	47.0	25.9
2020	Manuf. (Group C)	56.6	51.6	32.6	31.2
	Trade (Group C)	39.4	43.2	19.3	44.8
	Others	4.0	5.2	48.2	24.0

Source: CBRT, Author's Calculation.

In order to differentiate exporting or export-oriented companies, the criteria determined for "Rediscount Credits for Export and Foreign Exchange Earning Services" have been employed, and a condition was set forth stipulating that the export amount of a company in the last three years or the last year should be at least 10% more than its imports<sup>1</sup>.

<sup>1</sup> Export-oriented companies, whose exports exceeded their imports by at least 10 percent over the last year or in the last three years, were defined as net exporting companies.

The number of observations for net exporters for 2020 was 90,000 companies, constituting approximately 20 percent of manufacturing and trade sector companies during the time of analysis, and these companies carry out approximately 95 percent of the total exports in their sectors.

The total factor productivity (TFP), which is used as an indicator of productivity, indicates an increase in production that cannot be explained by inputs such as capital and labor. The TFP variable is calculated by taking the natural logarithm of the Cobb-Douglas production function and using the Olley and Pakes method (1996).

$$Y_{it} = A_{it} K_{it}^{\beta_k} L_{it}^{\beta_l}$$

Here,  $Y_{it}$  represents production of firm  $i$  at time  $t$  while  $K_{it}$  and  $L_{it}$  denote capital and number of labor, respectively.  $A_{it}$  denotes productivity that the researcher cannot observe unlike other observable indicators. The form below is obtained by taking the natural logarithm of the production function.

$$y_{it} = \beta_0 + \beta_k k_{it} + \beta_l l_{it} + w_{it} + \varepsilon_{it} \text{ ve } a_{it} = \beta_0 + w_{it}$$

While lower-case letters denote natural logarithms,  $a_{it}$  is the sum of average productivity value  $\beta_0$  and productivity increase  $w_{it}$ , meanwhile,  $\varepsilon_{it}$  denotes the measurement error specific to the firm. According to the Olley and Pakes method,  $w_{it}$  is directly related to the investment behavior of the company. Therefore, investment is used as a proxy variable while estimating the productivity.<sup>2</sup> Moreover, in order to prevent the selection bias problem that may emerge as surviving firms have higher productivity, this method defines the “exit” variable and estimates productivity by using a two-stage model. The variables used are listed below:

Y=Production (Sales)

K= Capital Stock (Fixed Assets)

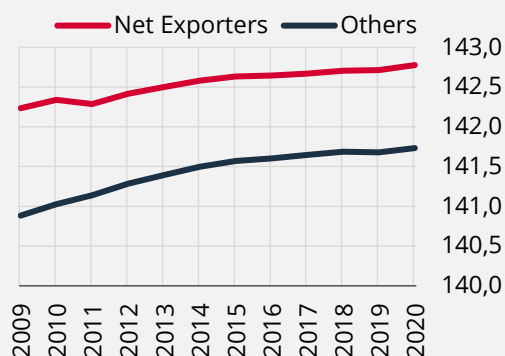
L=Number of labor

After obtaining capital and labor coefficients estimated by the Cobb-Douglas production function at sector level, the TFP value is calculated as the “residual value”.<sup>3</sup>

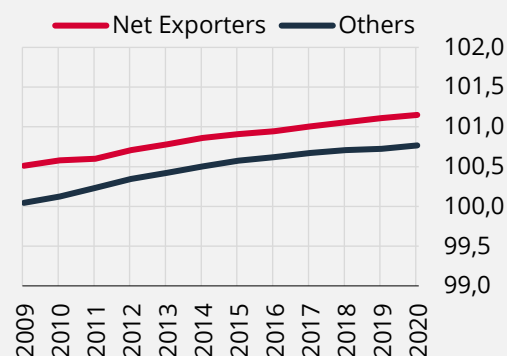
## Results

An analysis of productivity distribution of net exporting firms operating in the manufacturing industry (Group C) and trade (Group G) sectors, reveals that they have been consistently more productive than other firms over the years (Charts III.2.1.1 through III.2.1.3).

**Chart III.2.1.1: Average Productivity of Manufacturing Sector Firms**



**Chart III.2.1.2: Average Productivity of Trade Sector Firms**



Source: CBRT, Author's Calculation

Latest Observation: 2020

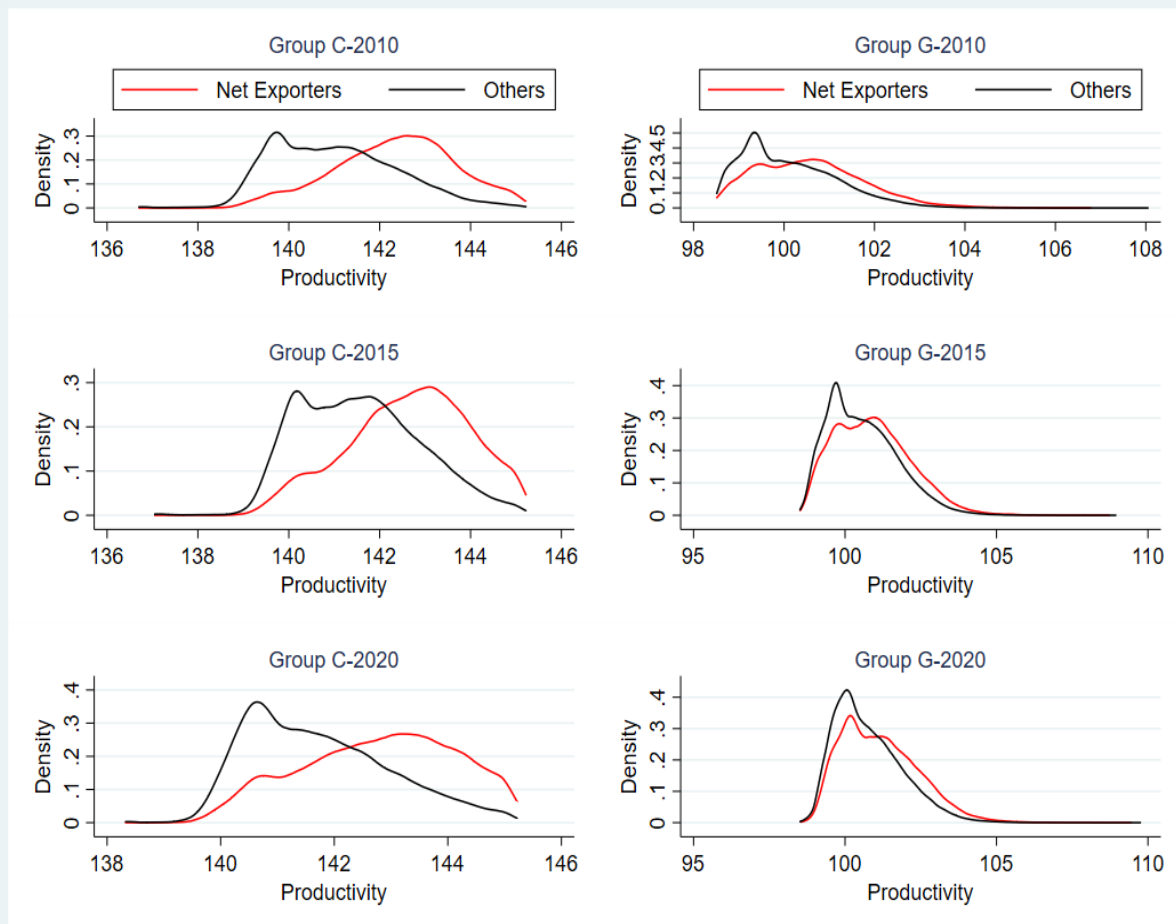
Note: Average values for firm-based TFP values have been used.

<sup>2</sup> Stock value has been used for investment proxy.

<sup>3</sup> For details of methodology, please see Olley, S., and Pakes, A. (1996). The dynamics of productivity in the telecommunications equipment industry. *Econometrica*, 64. The Cobb-Douglas production function has been estimated by differentiating by sectors and time constants have been controlled.

Owing to new technologies acquired by manufacturing sector companies to increase their competitiveness in the global market and the increase in capacity utilization, the productivity difference between net exporting companies and other companies is more remarkable. In order to make sure that incentives extended to companies are used in line with their purpose, obtaining a statement of commitment from companies for foreign currency earnings or investment activities will ensure a higher contribution to production, productivity and current account balance.

**Chart III.2.1.3: Productivity Distribution of Manufacturing (Section C) and Trade (Section G) Sector Companies**



Source: CBRT, Author's Calculation.

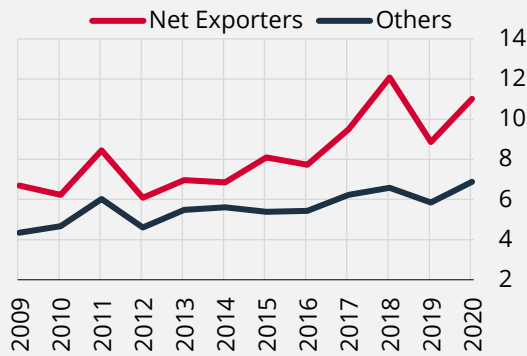
Latest Observation: 2020

When we examined the EBITDA/Asset ratio, which is used as a profitability indicator, we observed that, similarly, net exporting companies are more profitable than other companies and that the increase in profitability over time is higher in net exporting companies (Charts III.2.1.4 and III.2.1.5). Over the last years, in line with the rise in export revenues, the profits of these companies from their activities have increased more significantly than other companies. This favorable situation for net exporters in the operating profitability indicator, which allows forecasts to be made of company contributions to the country's potential growth and added value creation, shows that supporting these companies will also make a significant contribution to sustainable growth.<sup>4</sup>

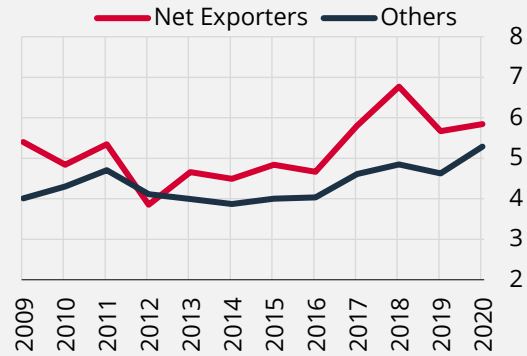
<sup>4</sup> Analysis of different ratios used as profitability indicators such as operating profit margin and net profit margin have generated similar results.



**Chart III.2.1.4: Average Profitability of Manufacturing Sector Companies**



**Chart III.2.1.5: Average Profitability of Trade Sector Companies**



Source: CBRT

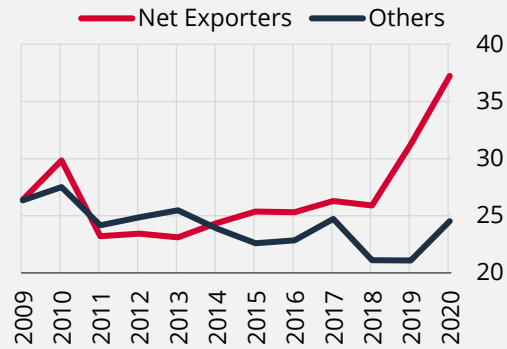
Latest Observation: 2020

Note: Profitability is calculated as the ratio of operational profitability to total assets.

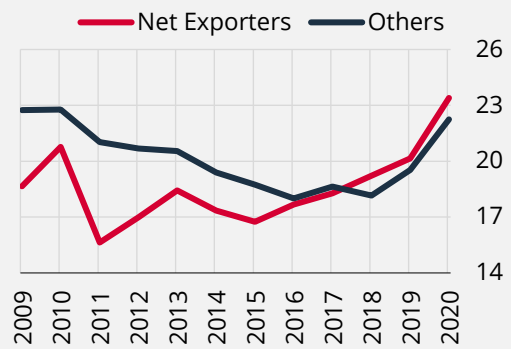
Although there are many indicators for balance sheet strength of firms, liquidity indicators give an idea with respect to cash management, debt payment capacity and bankruptcy risks of companies. The cash ratio, which is one of the liquidity indicators of companies, shows the ratio of liquid assets to short-term debts.

The fact that these companies, which have a strong export volume, have higher turnovers compared to other companies and can perform more effective cash flow management, indicates that their liquidity positions are better. The increasing export volume in the trade sector since 2018 has helped cash ratios of net exporting companies to be higher than others. The cash ratio indicator is high among net exporting companies, and this indicates that these companies will pay their due debts without experiencing financial difficulties despite disruptions that may occur in their activities.<sup>5</sup>

**Chart III.2.1.6: Average Cash Ratio of Manufacturing Sector Companies (%)**



**Chart III.2.1.7: Average Cash Ratio of Trade Sector Companies (%)**



Source: CBRT, Author's Calculation

Latest Observation: 2020

Note: The cash ratio is calculated as the ratio of the sum of liquid assets and securities to short-term debt.

<sup>5</sup> In literature, the threshold value for cash ratio is 20%. A lower value implies that the company might have difficulty in paying its debts.

## IV. Financial Sector

**On the back of macroprudential policies introduced in 2021, retail loan growth was more moderate compared to corporate loans, while TL corporate loan disbursements accelerated as of February 2022.** Deflated loan disbursements show that commercial loans have been growing faster than the long-term trend, and retail loans have been growing in tandem with the long-term trend. Growth in TL commercial loans was mainly driven by increasing working capital needs due to the rise in energy and commodity prices as well the increase in inventory financing. The effects of the macroprudential framework, which was reinforced to make sure that commercial loans were allocated for real economic activity purposes, are closely monitored.

**The strong outlook in asset quality of the banking sector continues.** The decline in the total NPL ratio was underpinned by strong TL loan growth and the increasing nominal loan balance due to the exchange rate effect; meanwhile, the effect of the termination of forbearance measures for loan classification in September 2021 on NPL ratios remained limited. The ratio of NPL collections to NPL additions is still strong. The probability of migration to Stage 2 loans and NPL are below pre-pandemic levels. Banks' continued prudent provisioning policy has limited risks stemming from asset quality. A significant part of Stage 2 loans is composed of loans without payment delays and, banks follow structured loans under Stage 2 loans prudently.

**In addition to the already high FX liquidity of banks, the strong increase in TL liquid assets in the current Report period supported the general liquidity of the sector.** Short and long-term liquidity indicators are above legal lower limits and historical averages. While banks have renewed more than 100% of maturing syndicated loans, the costs of external debts are increasing. The sector has high liquidity buffers against any liquidity shocks, and the capacity of FX liquid assets to meet FX external debts due within 1 year is high.

**The maturity mismatch between the sector's interest-sensitive TL and FX assets and liabilities has improved significantly, and the average maturity of fixed-rate loans has become shorter, while the share of variable-rate loans on balance sheets has increased.** The sector is considered to have a balance sheet structure that is resilient to interest rate shocks. In the current Report period, there are no banks that incur a capital loss over 10% due to the interest rate shock. In addition, with the contribution of FX-protected deposit products to the liraization of the balance sheet, the number of banks holding a FX position surplus and their share of assets in the sector increased.

**The profitability performance of banks, which accelerated in the first quarter of 2022, supports the sector's capital adequacy via the equity channel.** The rise in the loan/deposit interest spread, strong TL commercial loan growth and higher net interest income owing to CPI-indexed securities valuations have been effective in the improvement in profitability performance. Moreover, the decrease in loan provision expenses due to the moderate course of NPL additions supports profitability. Banks' high profitability performance and capital additions to public banks helped maintain high capital ratios.

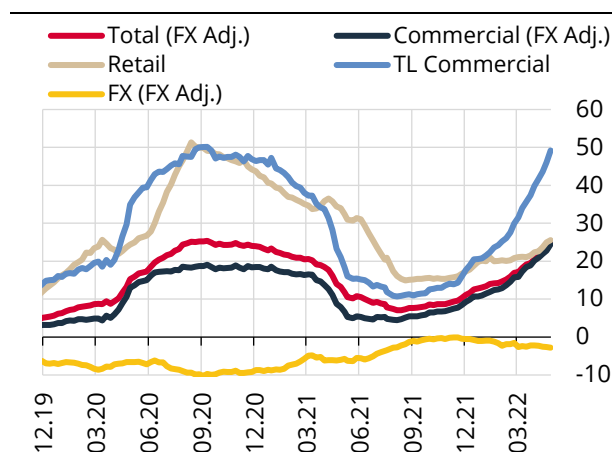
## IV.1 Credit Developments and Credit Risk

### IV.1.1 Credit Growth

**Loan growth has accelerated since February 2022 on the back of TL corporate loan extensions.**

Having been on the rise since the last quarter of 2021, FX-adjusted loan growth rose to 24.7% with TL corporate loan disbursements accelerating due to higher input costs caused by the Russia-Ukraine conflict (Chart IV.1.1). As a result of the weak FX loan growth, FX-adjusted corporate loans seem to have grown at a relatively moderate pace. Due to private banks' appetite for retail loan growth and firms' decreased borrowing, retail loans grew notably throughout 2021, whereas in the following period, TL corporate loans have picked up. The outlook for annualized 13-week loan growth reflecting more recent loan trends compared to annual loan growth points to a significant acceleration after September 2021 (Chart IV.1.2). In this period, the annualized 13-week growth of retail loans remained moderate at around 20% on average, except for slight fluctuations, while TL corporate loans grew at a strong pace.

**Chart IV.1.1: Annual Loan Growth (FX-adjusted, %)**

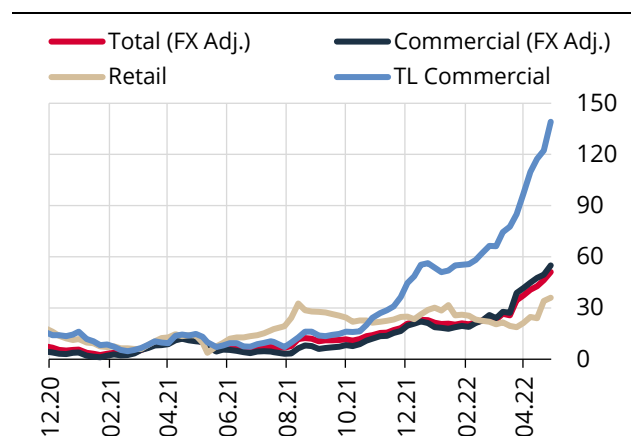


Source: CBRT

Last Observation: 29.04.22

Note: FX-indexed loans are included in FX loans. FX-adjusted loan growth is the ratio of the sum of the yearly change in TRY loans and TRY equivalent of change in FX loans, measured by multiplying one-year FX (basket) loan change with the one-year average basket exchange rate, to the total credit balance a year ago.

**Chart IV.1.2: 13-Week Loan Growth (Annualized, %)**



Source: CBRT

Last Observation: 29.04.22

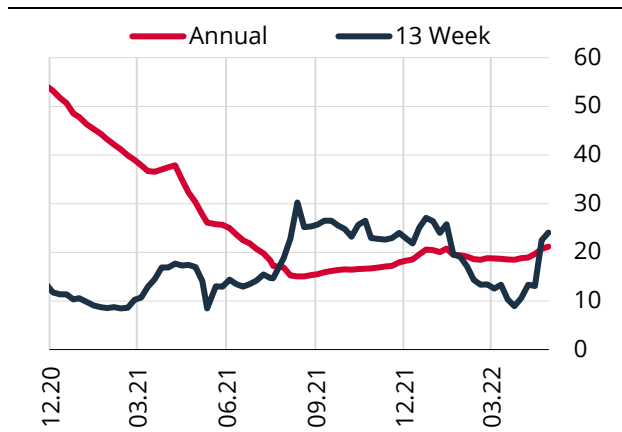
FX-indexed loans are included in FX loans. FX-adjusted loan growth is the annualized ratio of the sum of the 13-week change in TRY loans and TRY equivalent of change in FX loans, measured by multiplying 13-week FX (basket) loan change with the 13-week average basket exchange rate, to the total credit balance 13 weeks ago.

**Retail loan growth follows a more moderate course compared to corporate loans along with new macroprudential actions and rising loan rates.**

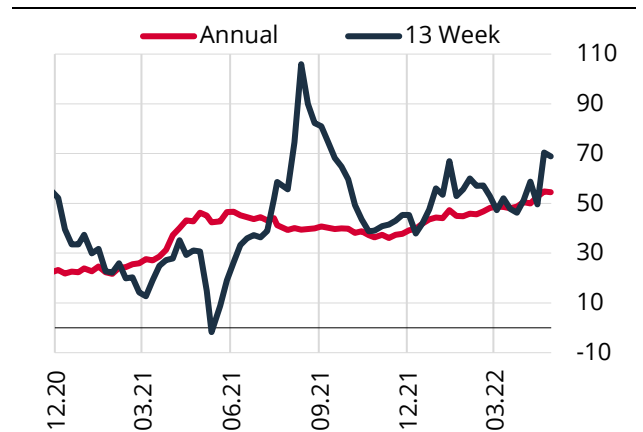
The macroprudential policy set that was introduced in July 2021 as increased credit risk weights to limit the negative effects of retail loans on the current account balance and the inflation outlook was strengthened with a maturity restriction in September 2021. On the other hand, higher general-purpose loan rates of 2022 led to an increase in the monthly installments that borrowers have to pay, suppressing the loan demand and causing loan growth to slow. There has been a slight pickup in the 13-week growth of general-purpose loans as of April (Chart IV.1.3).

The decreased demand for cash use during the pandemic and the increased online shopping amid total economic shutdowns caused personal credit card balances to grow faster than the inflation rate until 2022 (Chart IV.1.4). The growth of personal credit card balances is on par with inflation in 2022.

**Chart IV.1.3: General-Purpose Loan Growth (%)**



**Chart IV.1.4: Credit Card Loan Growth (%)**



Source: CBRT

Last Observation: 29.04.22

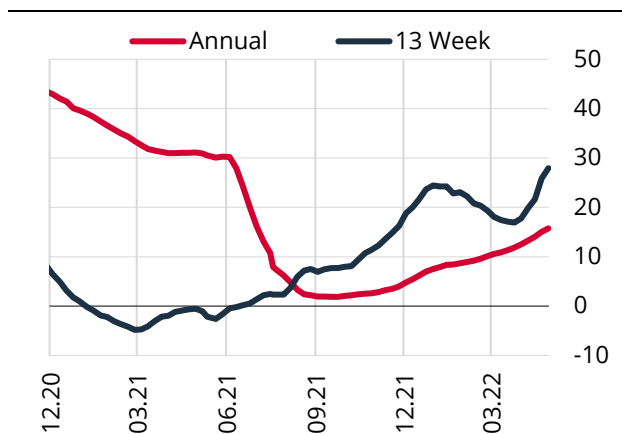
Source: CBRT

Last Observation: 29.04.22

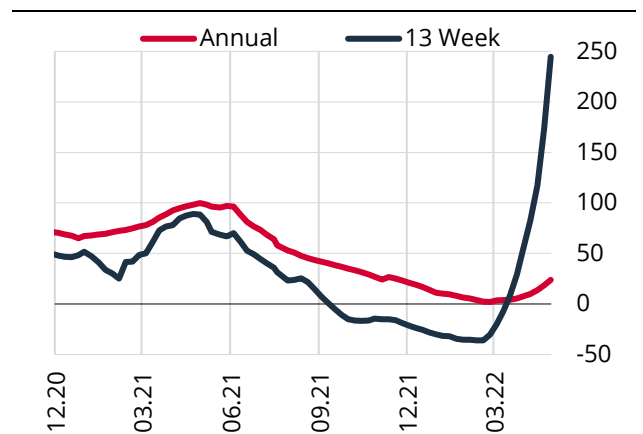
Note: Annual series show annual loan growth while 13-week series show annualized 13-week growth.

Being long-term, housing loans are very sensitive to loan rates, and thus housing loan growth was supported by credit campaigns offered by public banks in the last quarter of 2021 (Chart IV.1.5). The anticipation that house prices will remain on the rise due to increased construction costs (Household developments, Chart III.1.7) as well as the real level of housing loan rates and the increased demand for real estate investments to hedge against inflation all contribute to a brisk housing loan growth. Tighter macroprudential policies implemented for the maximum maturity and loan-to-value ratio of vehicle loans in July 2021 were highly effective in slowing loan growth in the following period, and driving 13-week loan growth into negative territory. After the lending thresholds for vehicle loans were adjusted relative to price developments in February 2022, the growth of vehicle loans accelerated with the help of the previous low growth period (Chart IV.1.6).

**Chart IV.1.5: Housing Loan Growth (%)**



**Chart IV.1.6: Vehicle Loan Growth (%)**



Source: CBRT

Last Observation: 29.04.22

Source: CBRT

Last Observation: 29.04.22

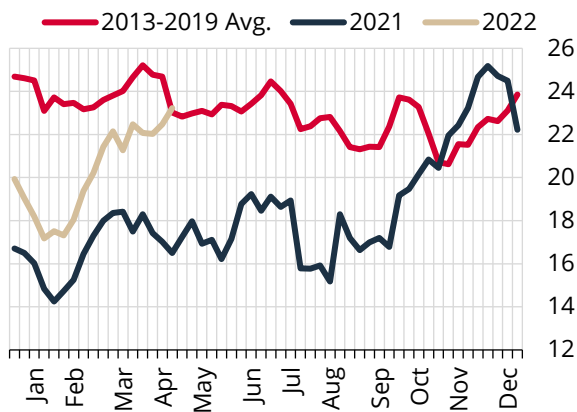
Note: Annual series show annual loan growth while 13-week series show annualized 13-week growth.

**While inflation-adjusted consumer loan disbursements are close to historical averages, real TL commercial lending is higher than in 2021 and close to its past average.**

Having increased in the last quarter of 2021 amid policy rate cuts, real TL commercial loan disbursements caught up with their historical averages at the end of the year. After a stagnant course in January, the disbursements accelerated to reach their historical averages in 2022 following the increased need for financing due to higher costs spurred by the Russia-Ukraine conflict (Chart IV.1.7). A loan growth in line with economic activity and macroeconomic balances is important for financial stability, and the effects of the

strengthened macroprudential framework are thus closely monitored. Inflation-adjusted consumer loan disbursements, which was well above its historical average in the early stages of the pandemic, declined to its historical average as of the third quarter of 2020 (Chart IV.1.8). Due to private banks' appetite for retail loan growth, loan disbursements somewhat strengthened in the second half of 2021, (see November 2021 Issue of Financial Stability Report, Credit Developments and Credit Risk, Charts IV.1.11 and IV.1.12) have been similar to their past averages in 2022.

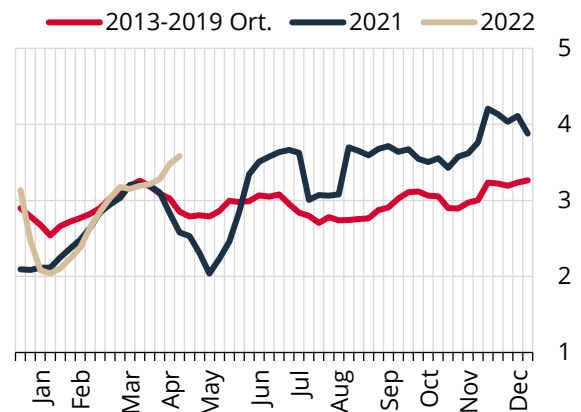
**Chart IV.1.7: TL Commercial Loan Disbursements** (Flow, TRY Billion, In Real Terms)



Source: CBRT

Last Observation: 29.04.22

**Chart IV.1.8: Consumer Loan Disbursements** (Flow, TRY Billion, In Real Terms)



Source: CBRT

Last Observation: 29.04.22

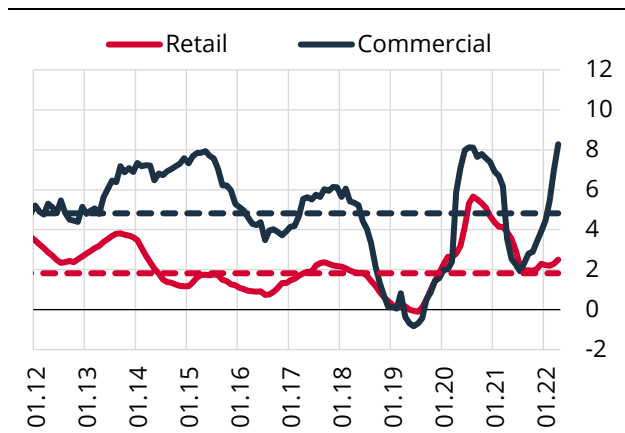
Note: Flow loan data is deflated by the CPI. The CPI of January 2013 was indexed at 1. 4-week moving averages of loan disbursements are used. Credit card and overdraft accounts are not included. Participation banks are excluded. Loan restructurings are reported as new loan disbursements.

**Commercial loans have grown faster compared to their long-term trend, whereas retail loans have grown at a rate similar to their long-term trend.**

How loan growth performs vis-à-vis its historical trend can be followed by a number of indicators. One of these indicators is net loan utilization, which is defined as the ratio of the change in the stock loan balance to GDP. Net commercial loan utilization exceeded its long-term average during the pandemic due to the loans offered to support the cash flows of the firms. After having slowed due to the tight monetary policy and fallen below its long-term average in the following period, net commercial loan utilization again exceeded its past average after February 2022. Net retail loan utilization, which was above its long-term average during the pandemic like corporate loans, has recently been on par with its past average (Chart IV.1.9). In addition to net loan utilization, credit gap indicators showing deviation from long-term trend are also used. By applying four different filtering methods to two different loan indicators (credit/GDP and logarithm of real credit), eight series are obtained for the deviation of loans from their long-term trends, and the changes in the standardized average values of these series are analyzed. Accordingly, the indicator obtained for total loans seems to have been in positive territory since November 2021 (Chart IV.1.10). This indicates that total loans have recently exceeded the level implied by their long-term trend. The gap between total loans and the long-term trend has reached a standard deviation of +1.5, indicating that total loans may inch into excessive expansion territory if this trend continues.

The rise of the total credit gap into positive territory was driven by the increase in TL commercial loans and the exchange rate impact on FX commercial loans. After jumping into excessive expansion territory as a result of pandemic stimulus packages, the TL commercial credit gap started to trend downward due to the tight monetary stance in the following period (Chart IV.1.11). The TL commercial credit gap began widening with the policy rate cuts that started in September 2021, and has risen to positive territory as of February 2022. Having moved into excessive expansion territory during the pandemic, the retail credit gap narrowed in the following period and has been in line with its historical average in 2022 (Chart IV.1.12).

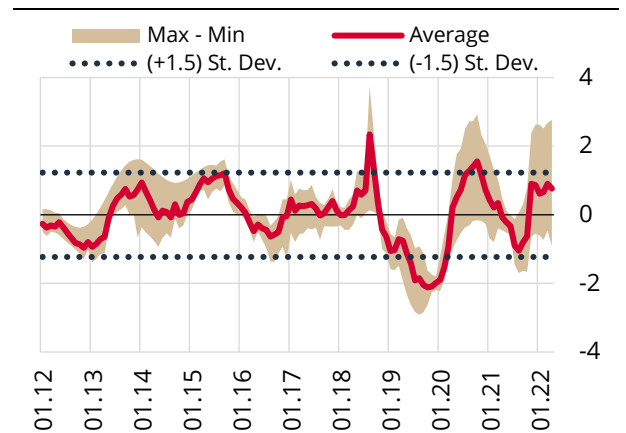
**Chart IV.1.9: Net Credit Utilization/GDP (%)**



Source: CBRT Last Observation: 04.22

Note: Net credit utilization is calculated as the ratio of the annual change in the nominal loan stock to the annualized GDP. To adjust for the exchange rate effect of FX loans, the monthly FX (basket) loan change is converted to TRY equivalent with the average basket rate of the relevant month. CBRT estimate is used for the GDP of 2022. Dashed lines indicate the average of the series for the 2012-2019 period.

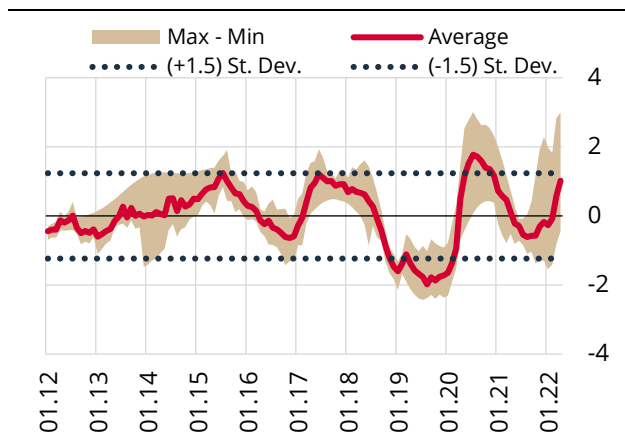
**Chart IV.1.10: Total Credit Gap (Standardized value)**



Source: CBRT Last Observation: 04.22

Note: See the note under Chart IV.1.11.

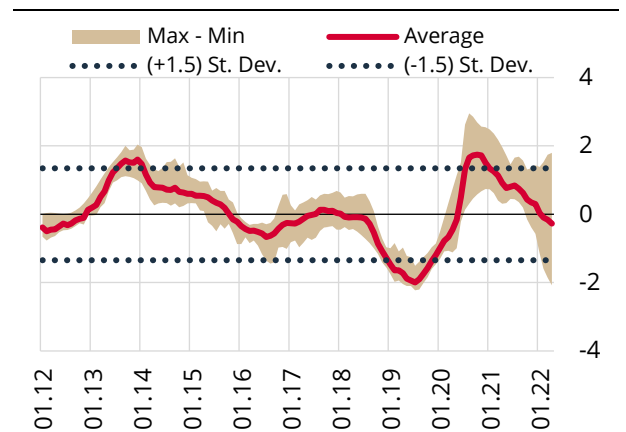
**Chart IV.1.11: TL Commercial Credit Gap (Standardized value)**



Source: CBRT Last Observation: 04.22

Note: Credit gap was calculated by applying four different filtering methods to the indicators of credit/GDP and logarithm of real credit. Inflation adjustment is done by adding the monthly changes in the stock credit balance deflated by the CPI to the stock balance of the previous month. The mean of the standard Z scores of eight credit gap indicators shows the average series, and the standard deviation of this mean shows the standard deviation series. Values above deviation (+1.5) indicate excessive credit expansion, while values below deviation (-1.5) indicate excessive credit contraction. The “Max-Min” series shows the gap between the maximum and minimum standard values of eight credit gap indicators. For technical details on the method, see the Financial Stability Report of November 2019, Special Topic V.1.

**Chart IV.1.12: Retail Credit Gap (Standardized value)**



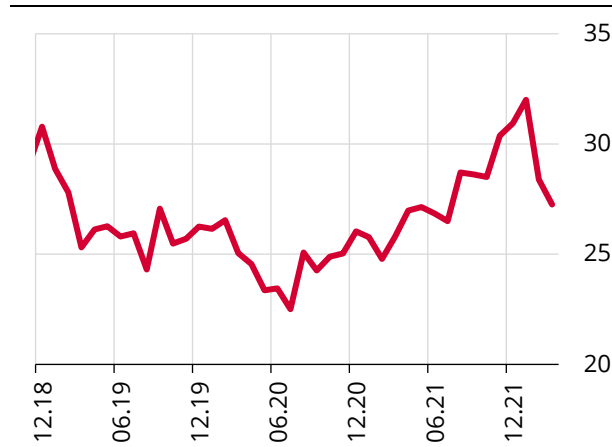
Source: CBRT Last Observation: 04.22

**The growing need for working capital driven by higher energy and commodity prices and increased inventory investments have also been effective in the growth of TL commercial loans in 2022.**

In addition to bank loans, firms can manage their cash flows by borrowing on instruments such as cheques and bills from other firms they have business relations with. Changes in the volume of cheques and bills,

used as a commercial financing instrument, give an idea about the development of sources of finance firms have access to other than bank loans. In this context, the inflation-adjusted volume of cheques and protested bills shows that inter-firm financing opportunities narrowed in the first quarter of 2022 (Chart IV.1.13). The rapid changes in input costs caused commercial debt maturities to shorten for some sectors or prompted firms to opt for cash sale rather than installment selling, thus, firms were more inclined towards bank financing in this period. Another factor affecting the financing needs of firms in the current reporting period was inventory investments. An analysis of total inventories of real sector corporations listed on the stock exchange reveals that their inventory turnover rates have slowed since the last quarter of 2021 and average number of days inventory held in stock has been lengthening (Chart IV.1.14). The pandemic-led increase in transportation costs, supply chain disruptions caused by a shipping container shortage and higher input costs have forced firms to ramp up their inventories of raw materials and products. Hence, firms' increased need for inventory financing with the contribution of favorable financial conditions appears to be a major driver of the acceleration in commercial loans since the last quarter of 2021.

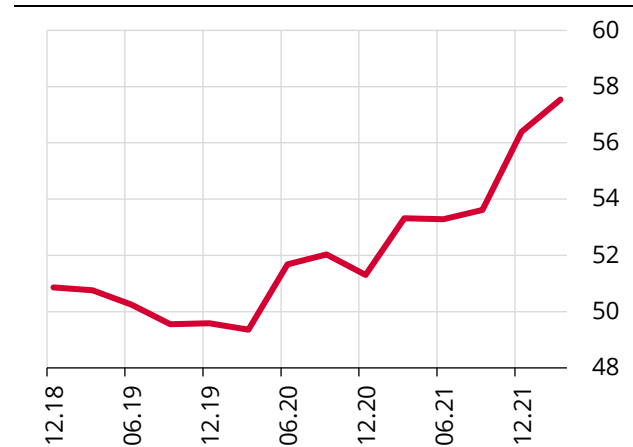
**Chart IV.1.13: Cheques and Protested Bills (TRY Billion, Inflation adjusted)**



Sources: Risk Center, CBRT Last Observation: 03.22

Note: Three-month moving average of the sum of CPI-deflated volume of cheques submitted to banks and protested bills collected by banks. The CPI of January 2003 is indexed as 1.

**Chart IV.1.14: Average Number of Days Inventory Held in Stock (BIST Firms, Days)**



Source: Finnet

Last Observation: 2022Q1

Note: Data of 203 firms listed on the stock exchange is used. The average number of days inventory held in stock is calculated as  $365/\text{inventory turnover rate}$ , and the inventory turnover rate is calculated as the ratio of annualized sales cost to average inventory.

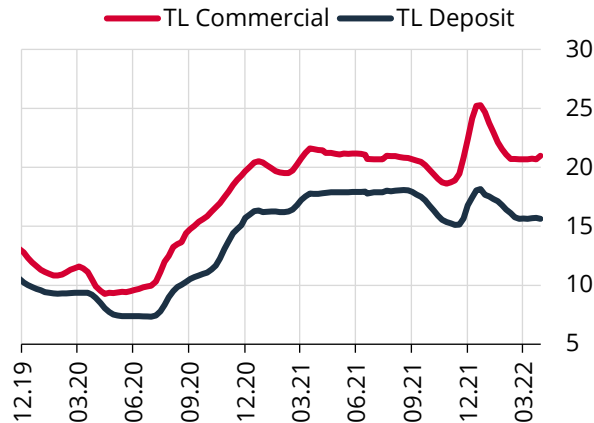
**The effects of the macroprudential framework, which was strengthened to ensure that commercial loans are being used for the intended purposes, are closely monitored.**

The outlook for annual and 13-week loan growth, inflation-adjusted loan disbursements, and credit gap indicators show that TL commercial loans grew at a faster rate than their historical averages. Although factors such as rising input costs and shorter maturities of commercial debts affect loan growth, some commercial loans have recently been used for speculative purposes. Thus, the macroprudential policy set has been strengthened to ensure that TL commercial loans are being used for the intended purposes. In an announcement made on 23 April, reserve requirement ratios were raised in proportion to the new TL loans offered to firms, excluding SME loans, agricultural loans, export loans and investment loans. In addition, the BRSA increased the risk weight for these loans on 28 April. In order to limit the risks to financial stability and the inflation outlook and to strengthen the liraization in the financial system, commercial loan growth is closely monitored, and it is important that loans are used in a way that supports investment, exports and potential growth. Long-term investments, productive manufacturing activities and import substitution will be encouraged through the CBRT-financed advance loans against investment commitment, thereby ensuring that loans are used for their intended purposes without compromising price stability and financial stability.

### TL loan rates have dropped in 2022 with the introduction of KKM.

The policy rate cuts that started in September 2021 translated into a decrease in TL deposit rates in the last quarter of 2021, while the fall in funding costs brought down TL loan rates (Charts IV.1.15 and IV.1.16). However, the increase in banks' TL liquidity needs due to the FX demand of depositors in December 2021 pushed TL deposit and loan rates higher. TL deposit and loan rates began normalizing after the introduction of KKM which alleviated the pressure on exchange rates and TL deposit rates since the end of December 2021.

**Chart IV.1.15: TL Commercial Loan Rates and TL Deposit Rates (4-Week MA, %)**

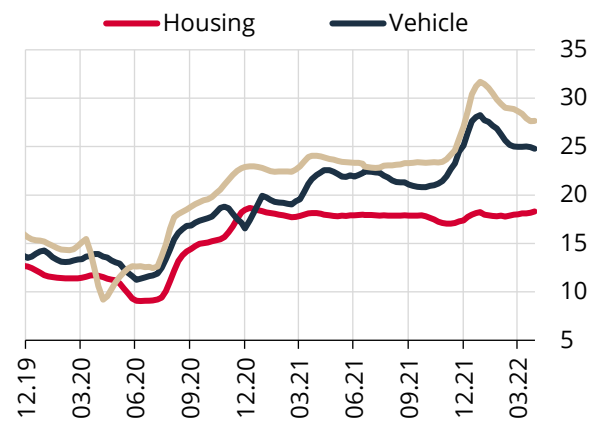


Source: CBRT

Last Observation: 29.04.22

Note: TL commercial loan rates excluding interest rates for corporate credit cards, legal person overdraft accounts and zero-interest loans. Interbank deposit rates are not included in TL deposit rates.

**Chart IV.1.16: Consumer Loan Rates (4-Week MA, %)**



Source: CBRT

Last Observation: 29.04.22

Note: Interest rates for real person overdraft accounts are excluded from general-purpose loan rates.

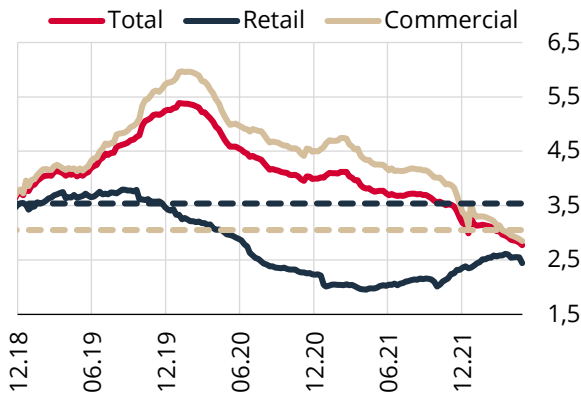
## IV.1.2 Credit Risk

**The NPL ratio decreased due to strong TL loan growth and the exchange rate-driven growth of loan balances, while the expired forbearance measure for loan classification had a limited effect on NPL ratios.**

The NPL ratio of the banking sector remained on a downward trend (Chart IV.1.17). The fall in the total NPL ratio was led by the decline in the corporate NPL ratio, while the retail NPL ratio was slightly up in this period. Among factors contributing to the change in the NPL ratio, the increase in the TL equivalent of FX loans due to exchange rate movements and the growth of TL loans pulled the total NPL ratio down (Chart IV.1.18). With the expiry of the forbearance measure in September 2021, NPL additions also drove the NPL ratio slightly higher in the last quarter of 2021.



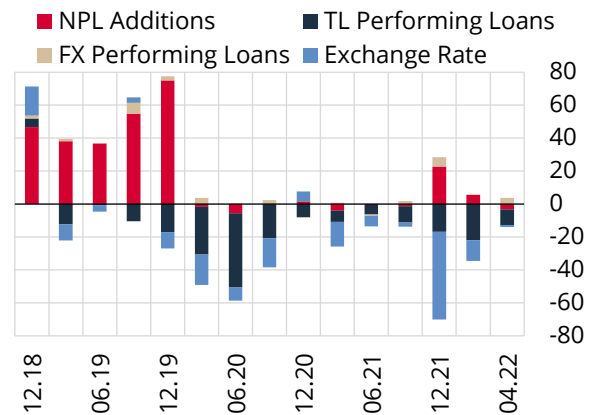
**Chart IV.1.17: NPL Ratios (%)**



Source: CBRT Last Observation: 29.04.22

Note: Dashed lines indicate the average of the relevant series for the 2012-2019 period.

**Chart IV.1.18: Contributions to the Change in NPL Ratios (Quarterly Total Contributions, bp)**

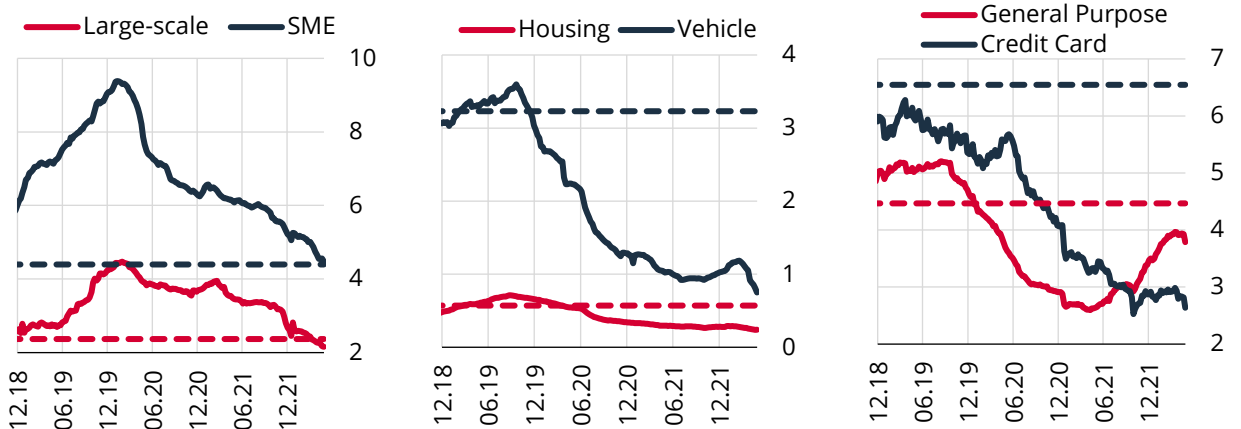


Source: CBRT Last Observation: 29.04.22

Note: Contributions show the total contribution amount in the relevant quarter, and the last column includes the contribution total from 1 to 29 April. For technical details on the method, see Financial Stability Report of November 2018, Box IV.1.1.

In the November 2021-April 2022 period, corporate NPL ratios dropped across all sizes of firms, and the NPL ratios of large-scale firms and SMEs fell to 2.2% and 4.5%, respectively. In addition to their decreased NPL balance, the decline in the NPL ratio of large firms was attributable to the TL loan growth and the exchange rate effect, while the TL loan growth was the main driver of the decline in the NPL ratio of SMEs despite the increase in their NPL balance. The increase in the NPL ratio for retail loans was mainly driven by general-purpose loans, and the NPL ratio for general-purpose loans rose by 54 bps to 3.8% in the current reporting period. This was mostly due to the accelerated migration to NPL from the basic needs support package loans, which were widely offered to assist low-income households during the pandemic, as the forbearance measure expired in September 2021. Meanwhile, having remained on a downward trend since 2016, the NPL ratio for PCC balances has been on a more horizontal path since the last quarter of 2021. Housing and vehicle loans, however, have a lower NPL ratio compared to other retail loans due to their collateralized nature and regulations that limit credit risk, such as loan-to-value ratio (Chart IV.1.19).

**Chart IV.1.19: NPL Ratios in the Breakdown of Credit Types (%)**



Source: CBRT

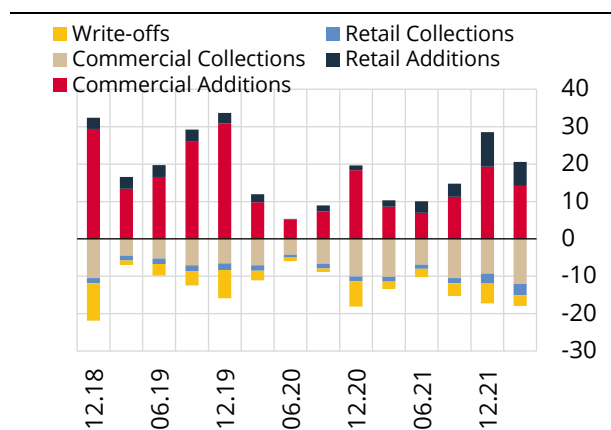
Last Observation: 29.04.22

Note: Note: Dashed lines indicate the average of the relevant series for the 2012-2019 period.

**With the expired forbearance measure for loan classification, NPL additions have increased slightly, but the ratio of NPL collections to NPL additions continues to be strong.**

The total NPL balance grew by TRY 13.9 billion to TRY 163 billion in the September 2021-March 2022 period due to the expiry of the forbearance measure. TRY 8.1 billion and TRY 5.8 billion of this increase in the NPL balance stemmed from retail loans and corporate loans, respectively. In the last quarter of 2021, NPL additions were up from previous quarters for both corporate and retail loans due to the expired forbearance measure, while NPL additions for retail loans continued to rise in 2022 (Chart IV.1.20). NPL collections, on the other hand, followed a course similar to that of previous periods. Write-offs mostly occurred for loans extended to large-scale firms, which limited the increase in the NPL balance of these loans. Although the ratio of NPL collections to NPL additions decreased somewhat with the termination of the forbearance measure for loan classification, it still hovers above its long-term average (Chart IV.1.21). Affordable pandemic relief loans limited NPL additions by improving the cash flows of firms and households, while strong economic activity and rising asset prices supported NPL collections. The ratio of NPL collections to the NPL balance remains flat around its long-term average.

**Chart IV.1.20: Components of NPL Balance**  
(TRY Billion)

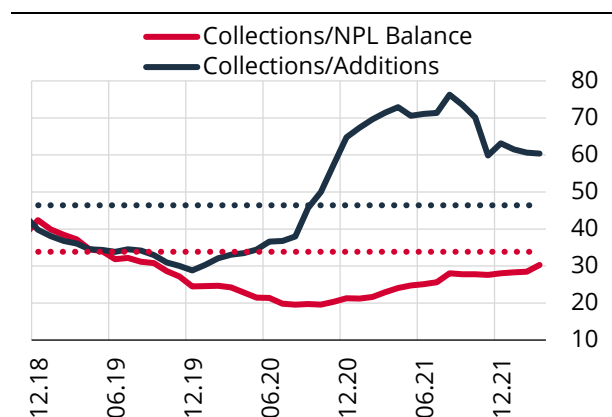


Source: CBRT

Last Observation: 03.22

Note: Series for collections, additions and write-offs are based on quarterly totals. Amounts transferred to performing loans are deducted from NPL additions.

**Chart IV.1.21: NPL Collection Rates (%)**



Source: CBRT

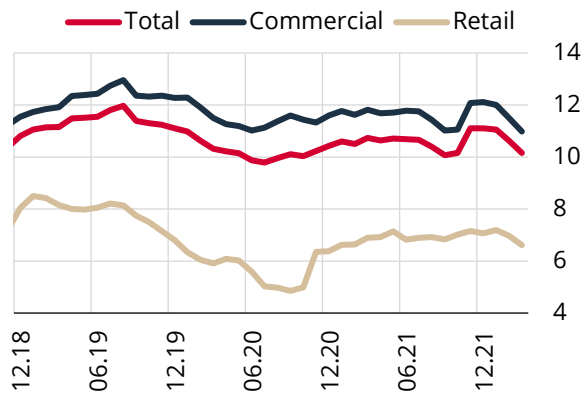
Last Observation: 03.22

Note: The Collections/NPL Balance ratio is calculated as the ratio of 12-month total NPL collections to 12-month average NPL balance. The Collections/Additions ratio shows the ratio of 12-month total NPL collections to 12-month total NPL additions. Dashed lines indicate the average of the relevant series for the 2012-2019 period.

**A significant portion of Stage 2 loans consists of loans without overdue payment, and banks classify restructured loans under the Stage 2 category prudently.**

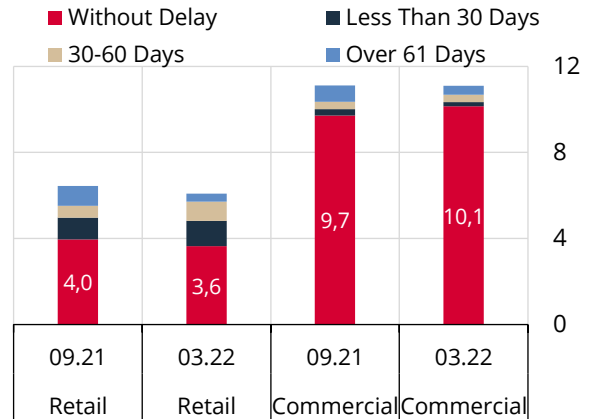
Banks have been using the TFRS 9 standard for the classification of loans since 2018, and even if the loans are not past due, they classify them as Stage 2 if their models suggest a significant increase in credit risk. Both total and corporate Stage 2 loan ratios went slightly up in the last quarter of 2021 (Chart IV.1.22). This pickup was mostly due to both the migration from standard (Stage 1) loans to Stage 2 loans after the expiry of the forbearance measure for loan classification and the exchange rate-driven increase in TL equivalents of Stage 2 loans, which have a relatively high FX content (64%). After February 2022, Stage 2 ratios went down amid migrations from Stage 2 loans to standard loans and strong loan growth. Looking at loan delinquency, 91% of corporate loans and 60% of retail loans under Stage 2 have not any delayed payment (Chart IV.1.23).

**Chart IV.1.22: Ratio of Stage 2 Loans (%)**



Source: CBRT Last Observation: 03.22  
 Note: Series show the ratio of Stage 2 loans to gross loans.

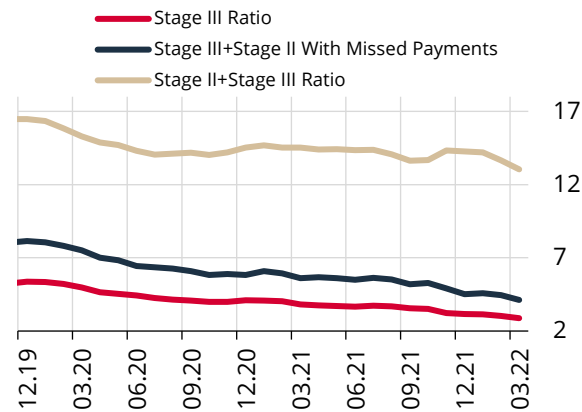
**Chart IV.1.23: Ratio of Stage 2 Loans by Number of Days in Arrears (%)**



Source: CBRT Last Observation: 03.22  
 Note: Series show the ratio of Stage 2 loans to gross loans by number of days in arrears.

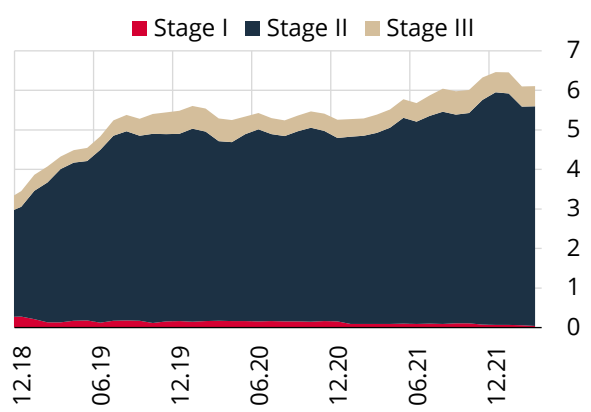
A Stage 2 loan can turn into an NPL when a debtor's payment performance deteriorates. Thus, monitoring the ratio of the sum of Stage 2 loans and NPL loans to gross loans provides a holistic approach to monitoring potential credit risk. As suggested by this indicator, the said ratio decreased by 60 bps to 13% in the current reporting period due to loan growth (Chart IV.1.24). However, since a significant portion of Stage 2 loans consists of loans without any payment delay, the ratio of overdue Stage 2 loans and NPL loans to gross loans would give a clearer picture of riskier loans. At 4.1% as of March 2022, this indicator fell in the current reporting period thanks to the decline in the ratios of both NPL loans and Stage 2 loans not classified as overdue.

**Chart IV.1.24: Asset Quality Outlook (%)**



Source: CBRT Last Observation: 03.22  
 Note: Asset quality indicators are proportioned to gross loans.

**Chart IV.1.25: Restructured Loans (%)**



Source: CBRT Last Observation: 03.22  
 Note: Series show the ratio of restructured loans to gross loans. Stage I: Ratio of restructured loans monitored under standard loans. Stage II: Ratio of restructured loans under close monitoring loans.

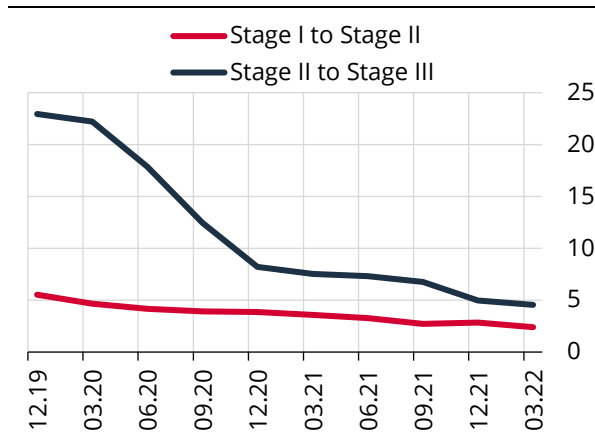
Loan restructurings contribute to improving the payment performance of a borrower whose cash flow is temporarily impaired and who is experiencing payment difficulties. In the current reporting period, the ratio of restructured loans to gross loans increased slightly to 6.1% (Chart IV.1.25). The payment performance of borrowers whose loans have been restructured but whose cash flows have yet to improve may deteriorate again. Therefore, restructurings of loans classified as performing loans in particular are

closely monitored for potential NPL risks. However, currently, 91% of restructured loans are in the Stage 2 category, 8% are classified as NPL, and a very small portion is in the Stage 1 category. This indicates that the banking sector remains prudent about restructured loans, and has sufficient provision buffers against potential risks arising from these loans.

**Transition probabilities to Stage 2 loans and Stage 3 loans are below pre-pandemic levels, and banks maintain their prudent provisioning policy.**

Transition probabilities between loan classes are among the indicators followed in terms of monitoring credit risk. In order to estimate the deterioration in credit risk, transition probabilities from Stage 1 to Stage 2 and from Stage 2 to Stage 3 loans are monitored, which are at 2.4% and 4.6%, respectively, for commercial loans as of March 2022 (Chart IV. 1.26). As the forbearance measure and the credit stimulus during the pandemic helped to improve the repayment performance of borrowers, transition probabilities have decreased in this period. The expiry of the forbearance measure in the last quarter of 2021 led to no notable change in the probabilities, and they are still behind their pre-pandemic levels, supporting the asset quality outlook of the banks. Due to the increased uncertainty during COVID-19, banks prudently raised their provision ratios across all loan categories. As of March 2022, provision ratios for Stage 1, Stage 2 and NPL loans are 0.7%, 19.6% and 80%, respectively (Chart IV.1.27). As banks have already earmarked provisions for such loans in large amounts following the pandemic, the pressure on profitability and capital due to asset quality risks will be limited.

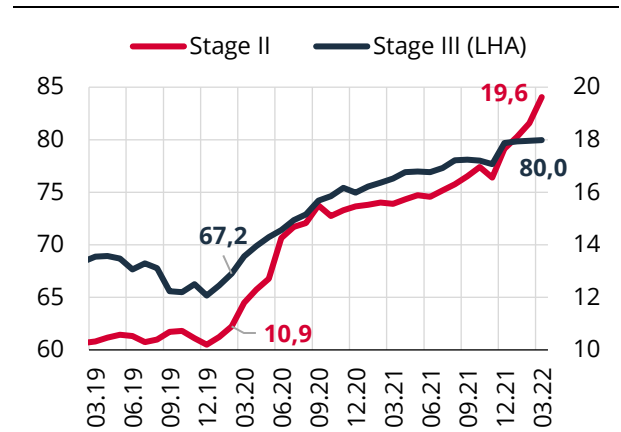
**Chart IV.1.26: Transition Probabilities**  
(Commercial Loans, %)



Source: CBRT Last Observation: 03.22

Note: The transition probability from Stage 1 to Stage 2 is estimated as the ratio of the loan amount migrating from Stage 1 to Stage 2 in a one-year period to the Stage 1 loan balance a year ago. The transition probability from Stage 2 to Stage 3 is estimated as the ratio of the loan amount migrating from Stage 2 to Stage 3 in a one-year period to the Stage 2 loan balance a year ago. Analysis was performed for commercial loans whose tax IDs are reported.

**Chart IV.1.27: Expected Loss Provisioning Ratio (%)**



Source: CBRT Last Observation: 03.22

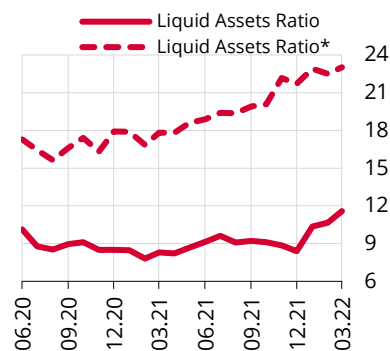
Note: Expected loss provisioning ratio is the ratio of the expected loss provision of the loan in the related category to the loan amount in that category.

## IV.2 Liquidity Risk

**The positive outlook for the banking sector liquidity is maintained. The strong increase in banks' TL assets in addition to FX liquidity, which is already high, has boosted the sector's general liquidity.**

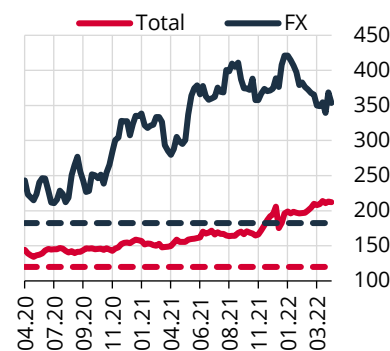
In the current Report period, in addition to the loan growth that lagged behind the deposit growth, the increase in unencumbered government debt securities (GDS) due to a lower need for TL funding by the banking system has supported the sector's liquid asset portfolio. Accordingly, the share of banks' liquid assets in total assets has increased significantly (Chart IV.2.1). The increase in total liquid assets has also reflected positively on banks' liquidity coverage ratios (LCRs), which are legally monitored and show the ability of banks to meet their short-term liquidity outflows. Despite the decline in FX LCR due to the decrease in FX RRs, the total LCR has climbed to its historic highs. Considering the legal ratios calculated for total and FX, banks' liquidity buffers that can manage their TL and FX short-term net cash flows remain high (Chart IV.2.2). The CBRT-backed KKM instrument enables a shift from FX deposits to TL deposits, thereby leading to an outflow from banks' existing FX liquid assets. Accordingly, upon the implementation of the CBRT-backed KKM product, the sector has met its FX liquidity need mostly from FX RRs, the CBRT's swap transactions, and free accounts at foreign correspondent banks. As a matter of fact, these three items have each posted a decline of varying size in the current Report period (Chart IV.2.3).

**Chart IV.2.1: Share of Liquid Assets in Total Assets (%)**



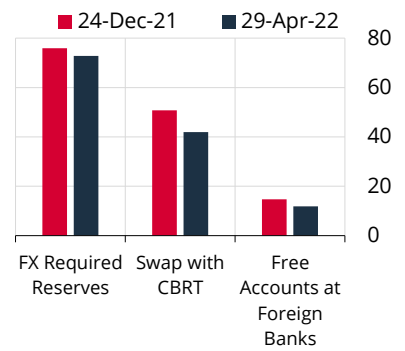
Note: Liquid Asset Ratio = (Cash Reserves+Free Accounts at Foreign Banks+Unencumbered GDS+Reverse Repo Receivables+Takasbank and BIST Interbank Market) / Assets. Liquid Asset Ratio\* = (Cash Reserves+Free Accounts at Foreign Banks+Unencumbered GDS+Reserve Requirements) / Assets. Unencumbered GDS=Government debt securities that are not subject to collateral or repo transactions.

**Chart IV.2.2: Total and FX Liquidity Coverage Ratios (4-Week MA, %)**



Source: CBRT  
Note: Development and investment banks (DIBs) excluded. Based on nonconsolidated reports. Minimum legal limit for FX and total LCR is 100% and 80%, respectively. Dashed lines represent the average of each series between 2014 and 2019.

**Chart IV.2.3: Change in Selected Liquid Asset Items (TRY Billion)**

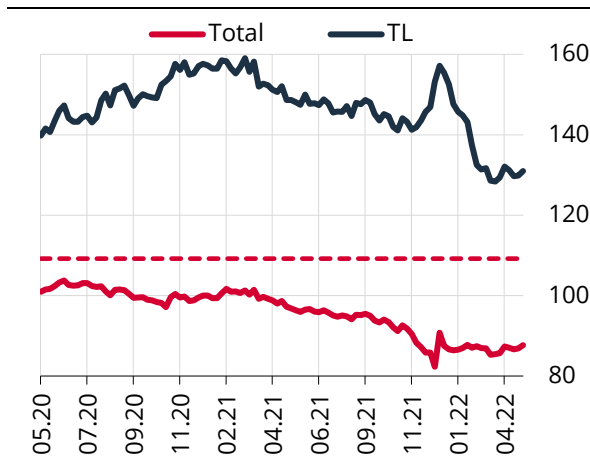


Last Observation: 29.04.2022

**While the Loan/Deposit (L/D) ratio, one of the major liquidity indicators of the banking sector, continued to decline, the TL L/D ratio improved on the back of the KKM implementation.**

The sector's L/D ratio fell to 88% as of 29 April 2022 (Chart IV.2.4). In the current Report period, the faster growth of deposits than loans played a role in the decrease of the L/D ratio. Additionally, as the difference between deposit and loan dollarization rates has widened in recent years, the L/D ratio became more sensitive to exchange rate developments. As a matter of fact, the rise in exchange rates in the current Report period also played a role in the decline of the total L/D ratio. The L/D ratio hovering below 100% and loans being funded by deposits, which are a stable funding tool, support the long-term liquidity outlook of the sector. The TL L/D ratio, which reached 157% due to higher deposit dollarization in the first half of December, rapidly decreased to 130% on the back of the strong increase in TL deposits after the KKM implementation. While TL deposits increased significantly thanks to the KKM implementation, FX deposits decreased and the TL funding need of the system declined as the TL L/D ratio decreased (Chart IV.2.5).

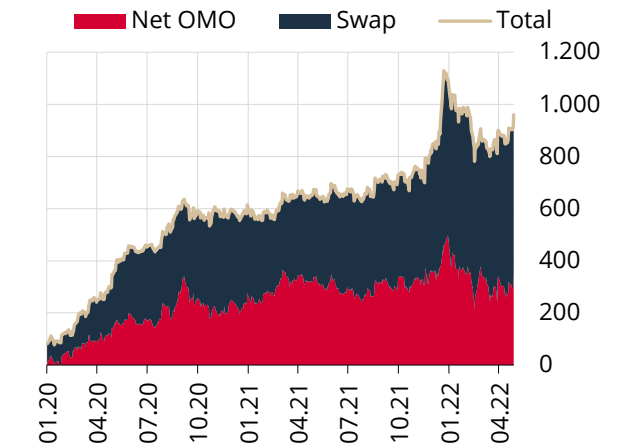
**Chart IV.2.4: Loan-to-Deposit Ratio (%)**



Source: CBRT Last Observation: 29.04.22

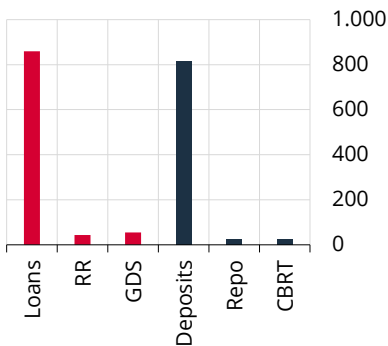
Note: Development and investment banks (DIBs) excluded. Loans extended to banks and banks' deposits are excluded. Non-performing loans are included in loans. Dashed line represents the average of L/D ratio for 2011-2018 period.

**Chart IV.2.5: Funding Need of the System (TRY Billion)**



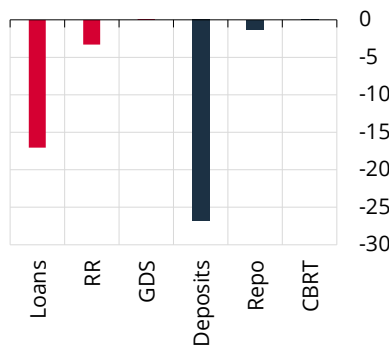
Source: CBRT Last Observation: 29.04.22

**Chart IV.2.6: Changes in TL Assets and Liabilities Compared to September 2021 (TRY Billion)**



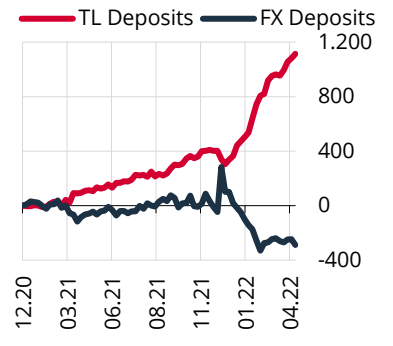
Source: CBRT  
Note: Assets and liabilities are shown in different colors. GDS represents securities at fair value through other comprehensive income and securities subject to repo transactions. Change in amounts between 24 September 2021 and 29 April 2021 of related items are shown.

**Chart IV.2.7: Changes in FX Assets and Liabilities Compared to September 2021 (USD Billion)**



Note: Assets and liabilities are shown in different colors. GDS represents securities at fair value through other comprehensive income and securities subject to repo transactions. Change in amounts between 24 September 2021 and 29 April 2022 of related items are shown. The differences in total asset and liability changes are covered by off-balance sheet transactions.

**Chart IV.2.8: Changes in Deposits Compared to December 2020 (TRY Billion)**



Last Observation: 29.04.2022  
Note: The values show changes since the end-2020. FX deposit series are the TL equivalent of the weekly change of USD-equivalent of FX deposits calculated by the average USD rate in the respective week.

**The CBRT and Treasury-supported KKM implementation has significantly contributed to the increase of the TL share in banking sector balance sheets.**

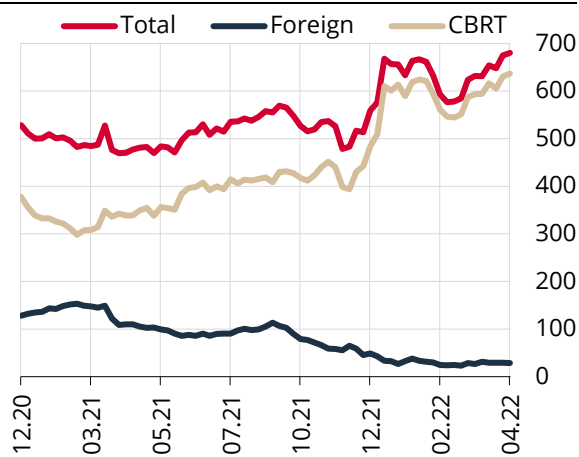
While the CBRT-backed KKM scheme boosted banks' TL assets and liabilities, it decreased their FX assets and liabilities (Chart IV.2.6 and Chart IV.2.7). Due to the reverse currency substitution process in this period, FX deposits receded while TL deposits posted strong growth (Chart IV.2.8). A similar shift was also observed in

loans, albeit on a smaller scale. All in all, the strong reverse currency substitution process seen in deposits and loans within the scope of the “Liraization” strategy contributed to an improvement in TL items in banks’ assets and liabilities.

**The banking sector continues to manage the currency mismatch between assets and liabilities mostly through the CBRT’s swap transactions.**

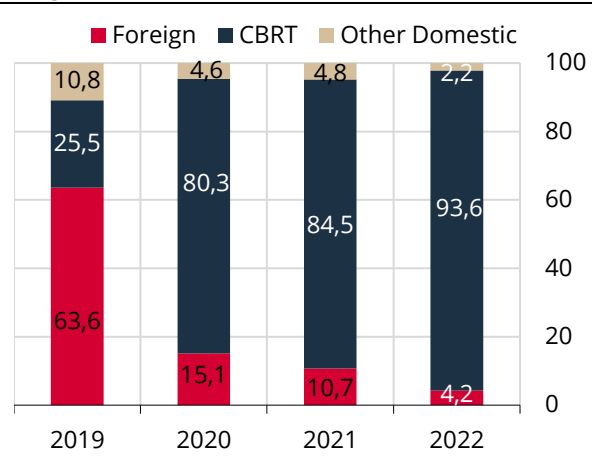
Due to increasing deposit dollarization until the first half of December 2021, the sector’s need for TL currency swaps increased. Following the introduction of the KKM scheme, the total net TL currency swap transaction balance, which had declined thanks to the strong reverse currency substitution process in deposits, increased slightly. As of 29 April 2022, the net TL swap funding amount of the sector was TRY 680 billion, and 94% of these transactions were conducted with the CBRT (Chart IV.2.9 and Chart IV.2.10).

**Chart IV.2.9: Net TL Currency Swaps (TRY Billion)**



Source: CBRT Last Observation: 29.04.22  
Note: Net TL currency swap amount shows the net TL funding amount that banks obtain via currency swap.

**Chart IV.2.10: Shares of Net TL Currency Swaps (%)**



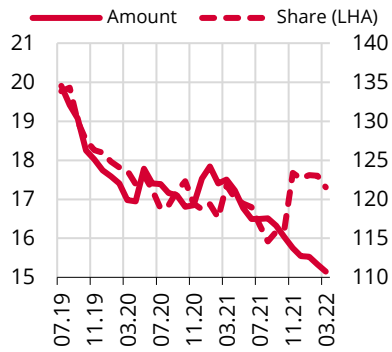
Source: CBRT Last Observation: 29.04.22  
Note: The average value of the last three months has been reported for each year. For 2022, the last observation has been used.

**Despite the increased geopolitical risks in addition to global economic developments, the sector’s ability to access foreign funding is high.**

The total external debt of the sector, which reached approximately USD 140 billion in June 2019, declined to USD 111 billion according to the latest data (Chart IV.2.11).<sup>1</sup> In this period, while the share of deposits and domestic resources in banks’ liability composition increased, the share of external debts, which are relatively vulnerable because of their sensitivity to global developments, decreased. In the current Report period, the share of foreign FX funding resources in total liabilities increased from 16% to 17% due to exchange rate developments. While the external debt rollover ratio of banks was hovering around 91% as of March 2022, banks mostly tended to pay off their high-cost long-term external debts while having a strong stock of foreign exchange liquidity (Chart IV.2.12). The average remaining maturity of external debt is 35 months, which move close to horizontal (Chart IV.2.13).

<sup>1</sup> This number shows the parity-adjusted amount of external debt, and the number is USD 107 billion when not adjusted for the parity effect.

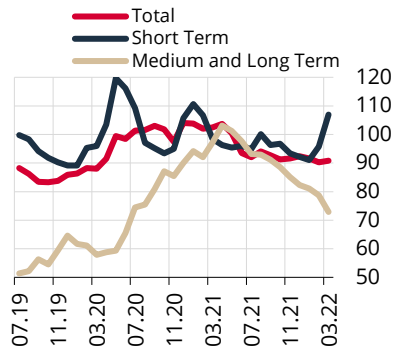
**Chart IV.2.11: External Debt and Share in Liabilities (USD Billion, %)**



Sources: CBRT, MKK

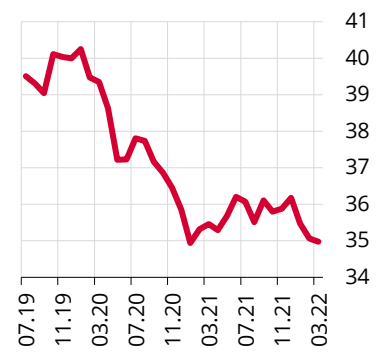
Note: Parity-adjusted amount. The USD equivalent of euro denominated external debts is recalculated by the parity value of June 2018. Liabilities don't include capital.

**Chart IV.2.12: External Debt Rollover Ratio (%)**



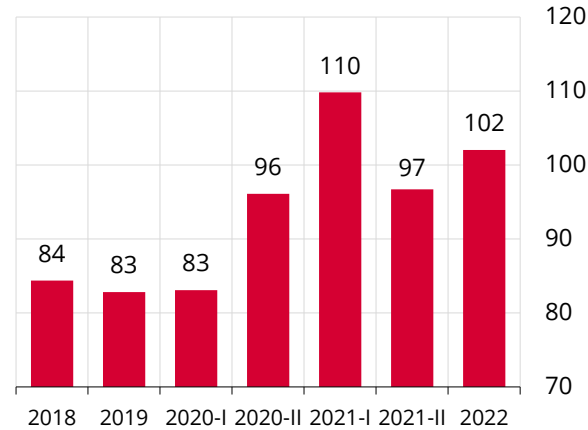
Note: External debt rollover ratios are calculated based on 6-month (for total), 3-month (for short-term) and 12-month (for long-term) moving totals of banks' total borrowings and repayments of external liabilities including securities issued abroad.

**Chart IV.2.13: Maturity of External Debt (Remaining Maturity, Month)**



Last Observation: 03.22

**Chart IV.2.14: Rollover Ratio of Syndicated Loans (%)**

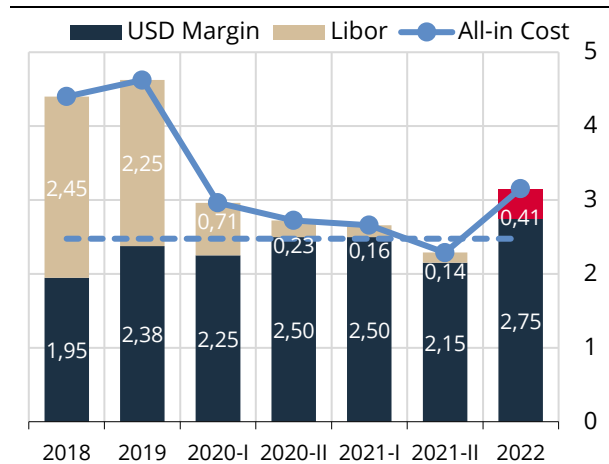


Sources: CBRT, KAP

Last Observation: 26.05.22

Note: 2020-I and 2020-II represent January-July and August-December; 2021-I and 2021-II represent January-September and October-December, respectively. The external debt rollover ratio is calculated as the ratio of the total new borrowing and repayments in the specified periods.

**Chart IV.2.15: Cost of Syndicated Loans (%)**



Source: KAP

Last Observation: 26.05.22

Note: Calculated for large-scale 10 banks excluding DIBs. USD margin shows the interest rate applied in addition to the Libor rate for syndicated loans obtained in USD. One-month average SOFR is given for the SOFR to be used for 2022. 2020-I and 2020-II represent the syndication periods of April-May and July-December; 2021-I and 2021-II represent April-July and October-November. The dashed line represents the average of the total cost for the 2014-2019 period.

Banks continue to renew their syndicated loans at high ratios and at relatively reasonable costs (Chart IV.2.14 and Chart IV.2.15). While the rollover ratio of syndicated loans has risen since the second half of 2020 compared to the 2018 - 2019 period, costs have declined. In the first syndication period of 2022, initial transactions were renewed at ratios of 100% and above, and the renewal ratio for other transactions is also predicted to be around 100%. Due to the partial increase in margins as well as the developments regarding global reference interest rates, costs have increased by approximately 90 basis points compared to the second

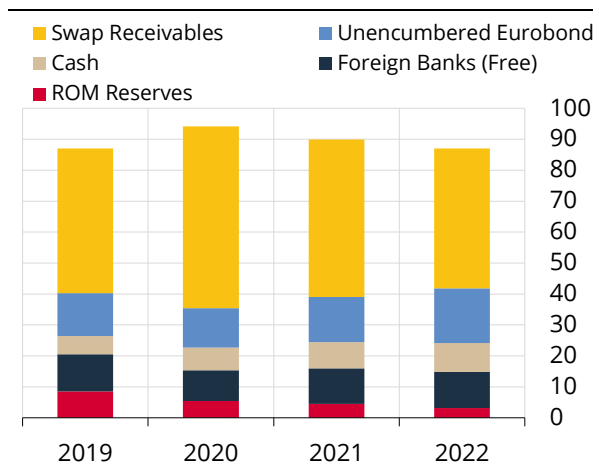


half of 2021. Therefore, the syndicated loans renewal performance gives positive signals regarding the sector's ability to access foreign financing.

**The banking sector has strong FX liquidity buffers against shocks that it may face in obtaining external financing.**

As of March 2022, the amount of FX external debt of the sector due in one year was USD 59 billion, and the existing FX liquid assets were USD 44 billion, reaching USD 85 billion when FX assets used in swap transactions are included (Chart IV.2.16). The external debt coverage ratio of these liquid assets is 75%, close to the historical average (Chart IV.2.17). Due to the FX liquidity need of banks after the CBRT-supported KKM scheme, the sector's free accounts at foreign correspondent banks decreased slightly. Additionally, the amount of FX assets held within the scope of the ROM decreased due to the termination of the facility of maintaining FX within the ROM. However, thanks to the increase in the cash and free Eurobond portfolio, banks' total FX liquid assets increased, albeit to a limited extent, in the current Report period. Banks also have FX assets of USD 41 billion originating from net TL swap transactions, which will fall due within one year. Including these assets, the sector's short-term FX external debt coverage ratio climbs to 145%, which is above the historical average.

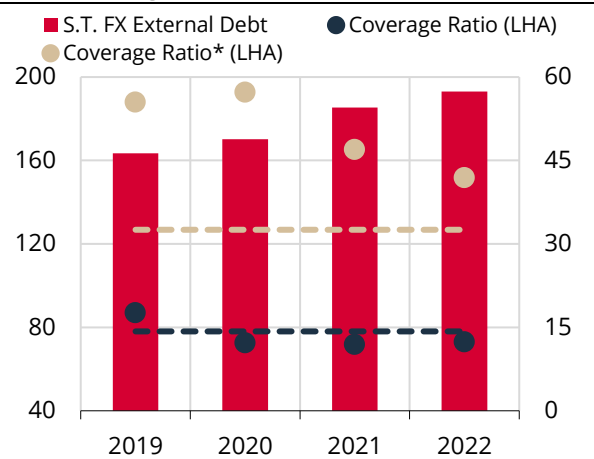
**Chart IV.2.16: FX Liquid Assets (USD Billion)**



Source: CBRT Last Observation: 03.22

Note: FX liquid assets include ROM reserves and cash reserves, free accounts at foreign banks, and unencumbered Eurobonds and are calculated at the month-end exchange rates. Swap receivables denote FX assets arising from net TL swap transactions that will fall due within one year. The average of the last three months has been reported for each year.

**Chart IV.2.17: Short-Term FX External Debt and Coverage Ratio (USD Billion, %)**



Source: CBRT Last Observation: 03.22

Note: External debt represents FX-denominated external debt that will fall due within one year and is calculated by excluding FX deposit accounts and TL deposit accounts from banks' short-term external debt stock. Coverage ratio: The ratio of FX liquid assets, excluding swap receivables specified in Chart IV.2.16 to external debt. Coverage ratio\*: Net TL currency swap amount (swap receivables) due within one year is also included in liquid assets. The average of the last three months is reported for each year. The dashed lines show the average of coverage rates for the 2014-2019 period.

Against a background of monetary tightening signals from advanced economy central banks and increased geopolitical risks in the recent period, the sector's ability to rollover external debts and liquidity buffers it has to counter likely shocks have become more of an issue. The sector's external debt has assumed a stable decline and its share in total liabilities has decreased since 2018. Therefore, the impact area of the risks stemming from renewal of external debts narrowed compared to similar periods experienced before (Table IV.2.1). Moreover, although banks' FX liquid assets decreased in this period, the level of their total FX assets including those used in currency swaps and their external debt coverage ratios were high. Additionally, as RR ratios applied to FX liabilities, and FX liabilities subject to RR increased, the FX RRs that banks hold at the CBRT increased significantly compared to previous periods. Therefore, while the amount of the sector's external debts has decreased over previous periods, FX liquid assets remain strong. This will make the sector less sensitive to external financing developments. Besides, the significantly longer maturities of external debts as compared to previous periods will support the sector's resilience to cyclical developments.

**Table IV.2.1. Developments in Selected Liquidity Indicators**

	<b>May 2013</b>	<b>June 2018</b>	<b>March 2022</b>
<b>FX External Debt</b> (USD Billion)	127	164	107
<b>Short Term FX External Debt</b> (USD Billion)	69	70	59
<b>FX Liquid Asset*</b> (USD Billion)	58	48	44
<b>FX Liquid Assets**</b> (USD Billion)	68	88	85
<b>Short Term Debt Coverage Ratio*</b> (%)	85	69	75
<b>Short Term Debt Coverage Ratio**</b> (%)	99	126	145
<b>Average Remaining Maturity of External Debt</b> (Month)	32	37	35
<b>FX Required Reserves</b> (USD Billion)	28	42	72

Source: CBRT

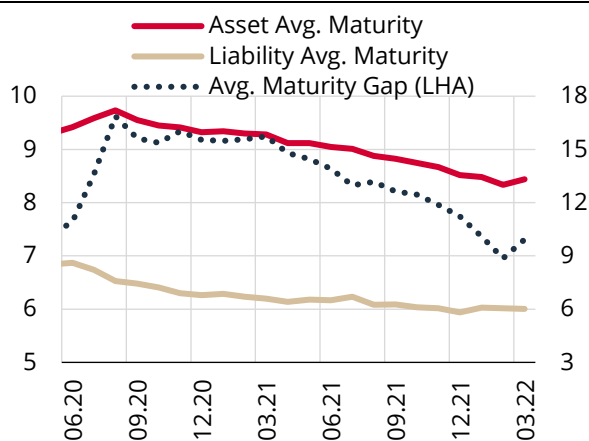
Note: (\*) FX liquid assets include ROM reserves and cash reserves, free accounts at foreign banks, and unencumbered Eurobonds. (\*\*) Net TL currency swap amount has been added to liquid assets as well. May 2013 represents the date on which the Fed signaled that it may start tapering gradually.

### IV.3 Interest Rate and Exchange Rate Risk

#### The maturity mismatch between TL/FX assets and liabilities improved significantly.<sup>1</sup>

The decline in the average maturity of banks' liabilities due to the uncertainty caused by the pandemic held steady as of December 2021, but reversed slightly in the following months. The weighted average maturity of liabilities decreased to 5.8 months in December 2021, but exceeded 6 months due to the extension of deposit maturities as KKM accounts came into practice. The decrease seen in the weighted average maturity of liabilities was driven by the changing shares in the composition of funding, indicating an increase in favor of instruments with shorter maturities such as deposits and money market, as opposed to a decrease in the securities issued and subordinated debt, as well as by shortening maturities for derivative liabilities. The weighted average maturity of interest rate-sensitive TL assets declined by 1.2 months to 13.3 months due to the decline in the average maturity of fixed rate loans and the increase in the share of floating rate instruments in loans and securities. Thus, the maturity gap decreased by one month in the current Report period (Chart IV.3.1). Moreover, due to the changes mainly in the securities and derivatives portfolios of banks, the weighted average maturity of interest rate sensitive-FX assets has lengthened by 0.8 months since the previous Report period and hovered around 17-18 months. The weighted average maturity of FX liabilities posted a limited increase (Chart IV.3.2).

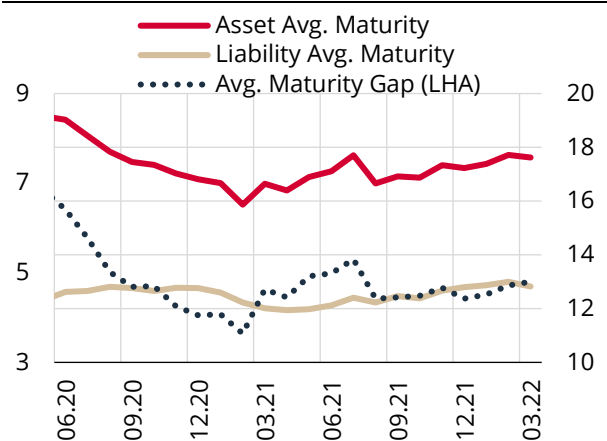
**Chart IV.3.1: Weighted Average Maturity of Interest Rate-Sensitive TL Assets and Liabilities (Month)**



Source: CBRT

Last Observation: 03.22

**Chart IV.3.2: Weighted Average Maturity of Interest Rate-Sensitive FX Assets and Liabilities (Month)**



Source: CBRT

Last Observation: 03.22

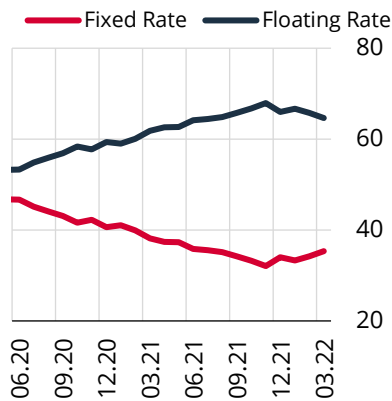
Note: Calculated with asset and liability items in the banking book. The average maturity gap was obtained by deducting the average liability maturity from the average asset maturity.

#### The maturity mismatch between banks' interest rate-sensitive assets and liabilities declined thanks to shortening maturities of fixed rate loans and increasing share of floating rate loans and securities.

Banks have significantly increased the ratio of floating rate instruments in their assets since June 2020, while the maturities of fixed rate loans have shortened (Chart IV.3.3, Chart IV.3.4 and Chart IV.3.5). Compared to the previous Report period, the share of floating rate TL securities remained almost flat, and while the share of floating rate loans in TL loans increased, the shortening in the maturities of fixed rate TL loans continued.

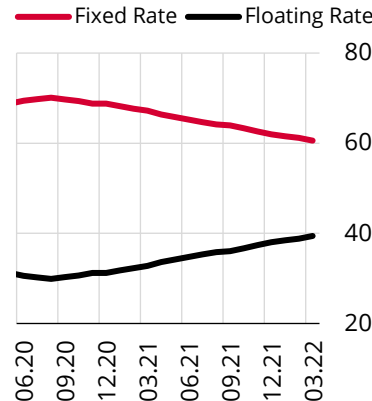
<sup>1</sup> Participation banks are excluded from the sector data used in interest rate risk analyses.

**Chart IV.3.3: TL Securities by Interest Type (%)**

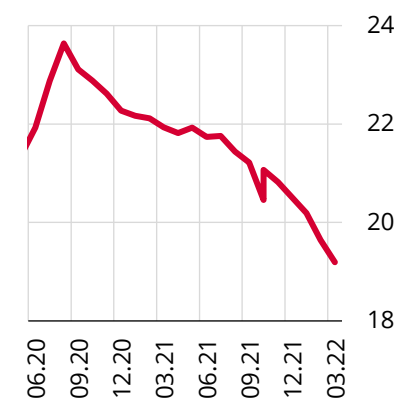


Source: CBRT

**Chart IV.3.4: TL Loans by Interest Type (%)**



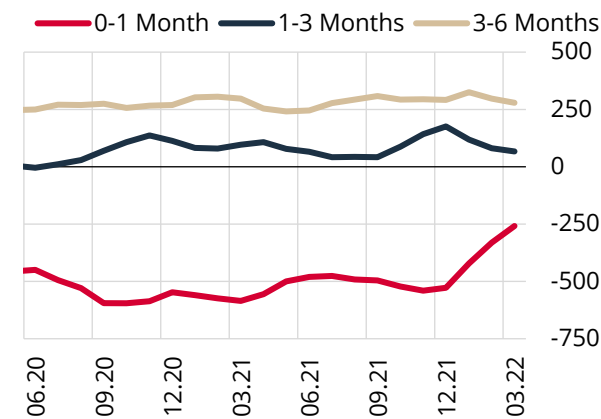
**Chart IV.3.5: Average Maturity of TL Loans (Month)**



Last Observation: 03.22

Depending on the repricing period, banks have interest rate-sensitive negative positions, while having positive positions in the longer term. The open position with a maturity of up to one month, which is the basis of banks' sensitivity to TL interest rates, decreased by TRY 236 billion to TRY 259 billion on the back of the KKM maturities of three months or longer. Meanwhile, their long positions in the maturity bracket of 3-to-6 months decreased to a limited extent (Chart IV.3.6). This improvement in the interest rate-sensitive open position of the sector has limited the interest rate risk exposure of banks by helping to lower their sensitivity to changes in interest rates. Furthermore, the high shares of the sector's demand deposits at 22% in TL and 48.1% in FX somewhat limit the repricing risk that banks face as deposits have shorter maturities (Chart IV.3.7). However, compared to the previous Report period, the uptrend in the share of TL demand deposits reversed, and that of TL time deposits receded slightly. The share of FX demand deposits increased further due to the decrease in FX time deposits driven by conversion accounts.

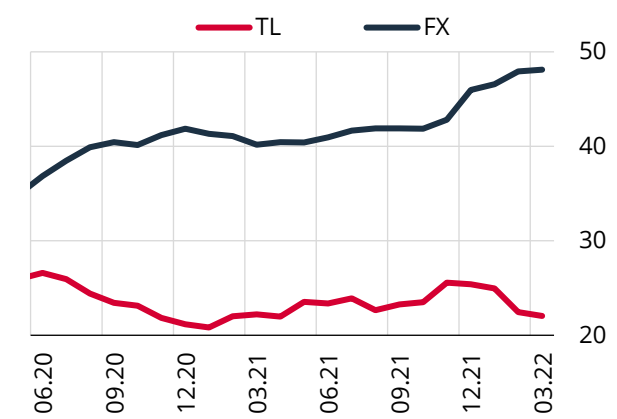
**Chart IV.3.6: Change in TL Gap Analysis by Repricing Period (TRY Billion, 3-Month MA)**



Source: CBRT

Last Observation: 03.22

**Chart IV.3.7: Change in Demand Deposit Share (%)**



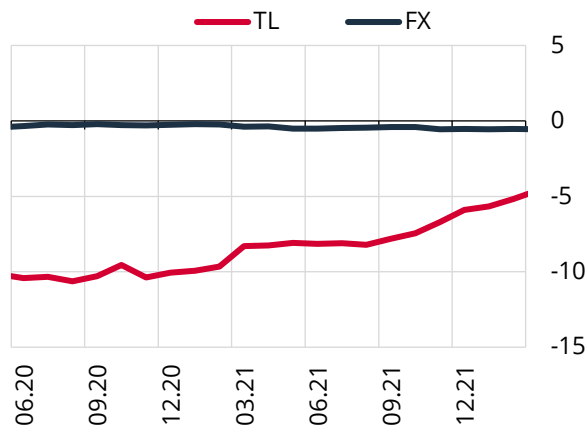
Source: CBRT

Last Observation: 03.22

**The TL interest rate risk to which banks are exposed due to the maturity mismatch and balance sheet structure has decreased significantly.**

The sector’s interest rate-sensitive banking book can also be exposed to interest rate risk due to repricing. A sensitivity analysis shows that the sensitivity of the banking book account to interest rate shocks has gradually decreased. While the negative effect of a shock of 500 basis points in TL interest rates was 10% of the capital at the end of 2020, it declined to 4.6% as of March 2022 (Chart IV.3.8).<sup>2</sup> The sensitivity of banks’ balance sheets to the FX interest rate risk is limited. The effect of the loss in banks’ capital caused by a 200 basis-point rise in USD/EUR interest rates on regulatory capital remains below 1%. To hedge against the FX interest rate risk, banks make effective use of derivative products. The sector is considered to have a balance sheet structure that is resilient to interest rate shocks. While the sensitivity of banks corresponding to 28% of the sector’s total asset size stood above 10% in the previous Report period, there are no banks that incur a capital loss of 10% or above due to the interest rate shock in the current Report period (Chart IV.3.9). The share of banks that have an interest rate sensitivity below 5% of capital increased.

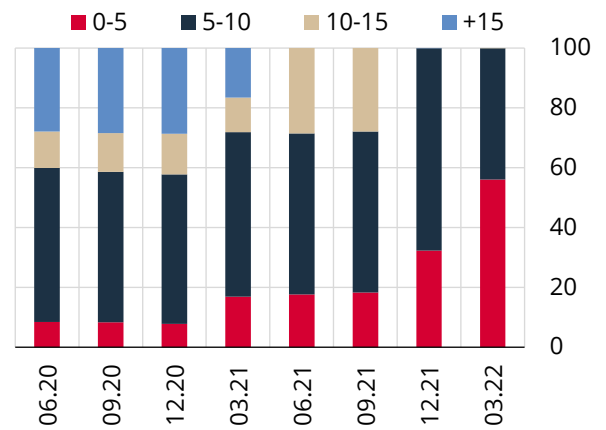
**Chart IV.3.8: Loss to Capital Ratio After a Positive TL Interest Rate Shock (%)**



Source: CBRT

Last Observation: 03.22

**Chart IV.3.9: TL Asset Shares of Banks by Loss to Capital Ratio Intervals After a TL Interest Rate Shock (%)**



Source: CBRT

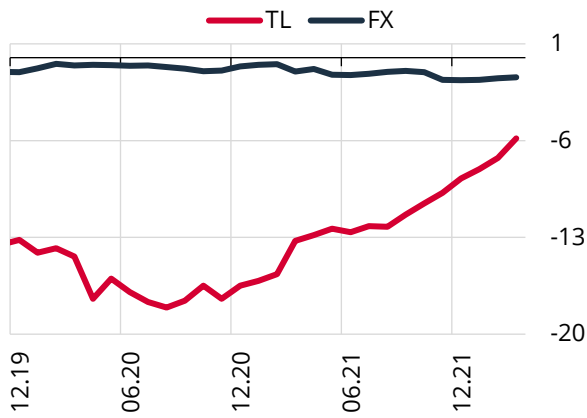
Last Observation: 03.22

Note: The economic value approach takes into account the change in the present value of interest rate-sensitive assets (banking book) and liabilities in the face of a change in the interest rate. The yield curve is assumed to display a parallel upward movement of 500 basis points in a TL interest rate shock and 200 basis points in an FX interest rate shock. The chart shows the possible loss to regulatory capital ratio in the event of an interest rate shock. Losses under the interest rate shock scenario are divided into brackets. The total assets of banks in each bracket are proportioned to the total assets of the sector.

The improvement seen across the sector in resilience to a positive interest rate shock is much more evident in state deposit banks. While the sensitivity of state deposit banks was -16.5% at end 2020, it was -11.4% in the previous Report period, and reached -5.8% in the current Report period (Chart IV.3.10). The improvement in the interest rate sensitivity of private banks was more limited in the same period (Chart IV.3.11).

<sup>2</sup> Under the BRSA’s Regulation on the Measurement and Assessment of the Interest Rate Risk in the Banking Book via the Standard Shock Method, the interest rate risk-driven loss to regulatory capital ratio cannot exceed -20%.

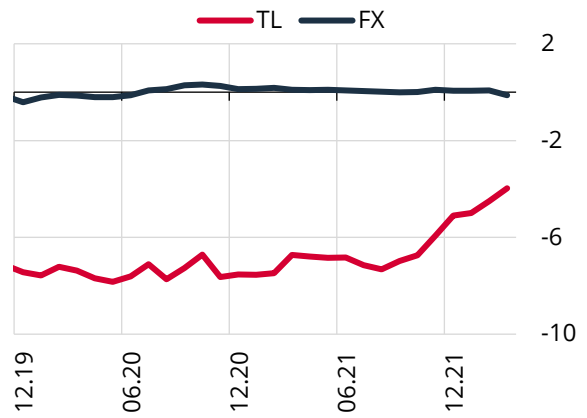
**Chart IV.3.10: Loss to Capital Ratio After a Positive TL Interest Rate Shock (Public, %)**



Source: CBRT

Last Observation: 03.22

**Chart IV.3.11: Loss to Capital Ratio After a Positive TL Interest Rate Shock (Other, %)**



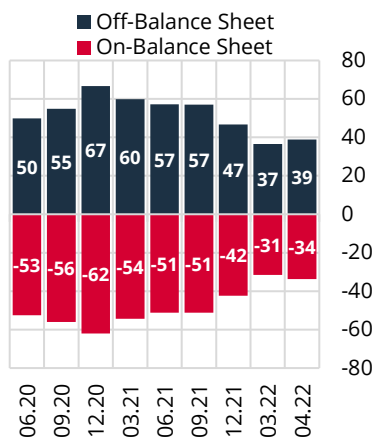
Source: CBRT

Last Observation: 03.22

**The FX long position of the banking sector serves as a hedge against exchange rate shocks. The number of banks with FX long positions has increased.**

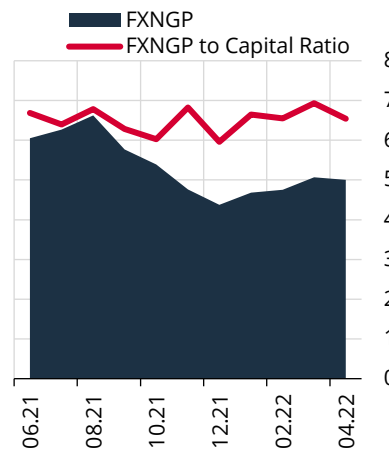
Compared to the previous Report period, the FX net general position (FXNGP) of the banking sector decreased by USD 0.7 billion to a surplus of USD 5.0 billion (Chart IV.3.12). In the 5 November – 29 April period, the weekly average FXNGP to capital ratio calculated for the sector remained flat at 6.5% (Chart IV.3.13). Despite the limited decline in the net FX position, the number of banks with FX long positions increased. Additionally, the total asset shares of banks with FX long positions remain high (Chart IV.3.14).

**Chart IV.3.12: Banking Sector's FX Position (USD Billion)**



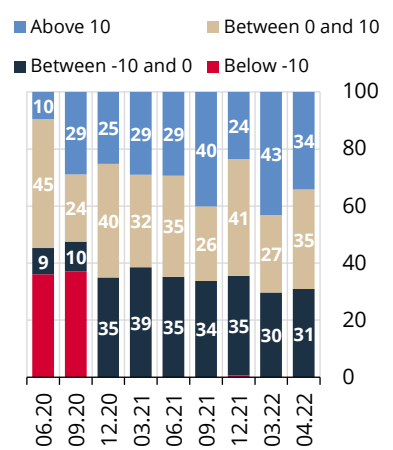
Source: CBRT

**Chart IV.3.13: FXNGP to Capital Ratio and FXNGP (%), USD Billion)**



Note: Shows the weekly simple arithmetic mean of FXNGP/Capital ratios.

**Chart IV.3.14: Total Asset Shares of Banks by FXNGP/Capital Ratio (%)**



Note: Asset aggregates of March were used in April calculations.

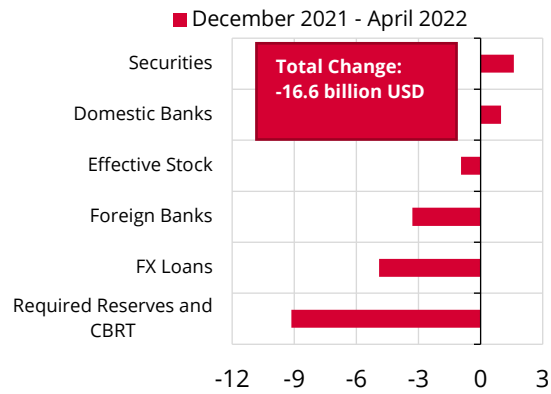
Last Observation: 29.04.2022

**Banks' on-balance sheet open positions have improved by USD 28.5 billion since the end of 2020. This improvement has been USD 8.8 billion since the end of 2021, when the KKM scheme was introduced.**

The on-balance sheet FX assets have declined by USD 16.6 billion since end-2021 (Chart IV.3.15). This decline has been mainly driven by reserve requirements. After liraization of the funding side of balance sheets, some of the FX required reserves that banks kept for FX liabilities were released. Meanwhile, the termination of FX reserve facility in the Reserve Options Mechanism as of October 2021 also played a major role in this change. In the same period, the shift from FX deposits to TL deposits thanks to KKM accounts led to a decrease in on-balance sheet FX liabilities by USD 21.9 billion due to deposits and by USD 25.4

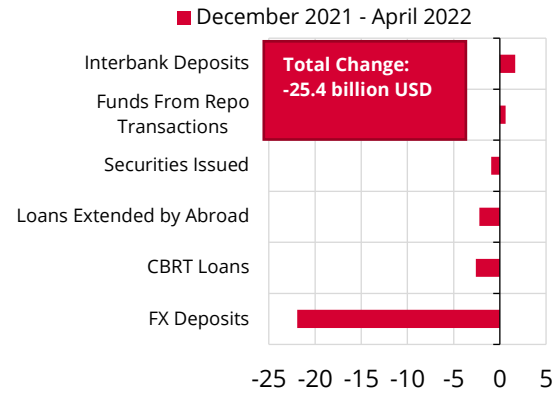
billion in total (Chart IV.3.16). Compared to the end of 2021, the off-balance sheet FX position decreased by USD 8.2 billion in line with the on-balance sheet position. Due to the decrease in currency swap transactions as a reflection of the strong shift to TL deposits, the decline in the off-balance sheet position was driven entirely by off-balance sheet assets.

**Chart IV.3.15: Change in Banking Sector's On-Balance Sheet FX Assets (USD Billion)**



Source: CBRT Last Observation: 29.04.2022

**Chart IV.3.16: Change in Banking Sector's On-Balance Sheet FX Liabilities (USD Billion)**

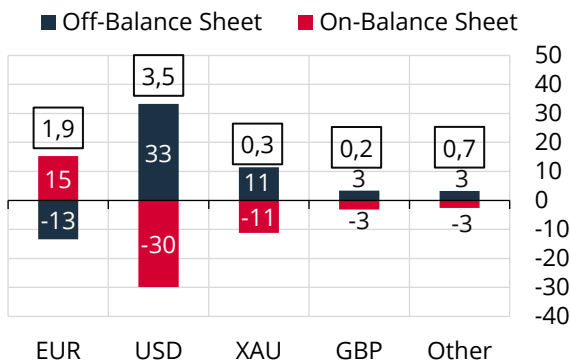


Source: CBRT Last Observation: 29.04.2022

Note: FX deposits refer to the total of FX deposit accounts and precious metal deposit accounts.

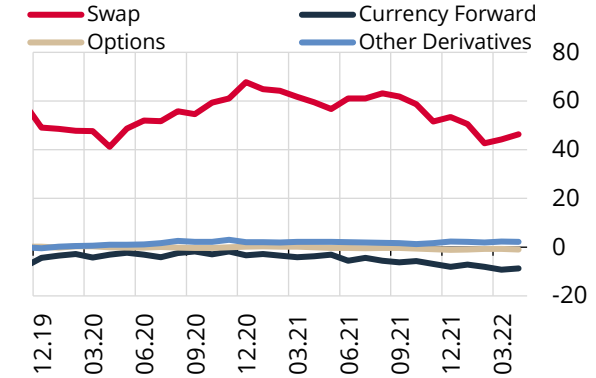
Regarding USD and EUR-denominated positions, banks recorded USD 3.5 billion and EUR 1.9 billion net general long positions. Meanwhile, the net general position in gold ran a surplus of USD 0.3 billion. Gold deposit accounts, which decreased by approximately 16 tons on account of KKM products, resumed their increase in line with global gold prices, with gold being considered a safe haven amid the Russia-Ukraine conflict (Chart IV.3.17). Banks continue to use derivatives intensively in their exchange rate risk management. While currency swap transactions have the highest share in off-balance sheet FX transactions, options and other futures transactions have a limited share (Chart IV.3.18).

**Chart IV.3.17: FX Position of the Banking Sector in Currency (March 2022, Billion)**



Source: CBRT Last Observation: 03.22  
Note: Gold and other currencies are shown in USD terms.

**Chart IV.3.18: Net Positions of Off-Balance Sheet FX Transactions (USD Billion)**



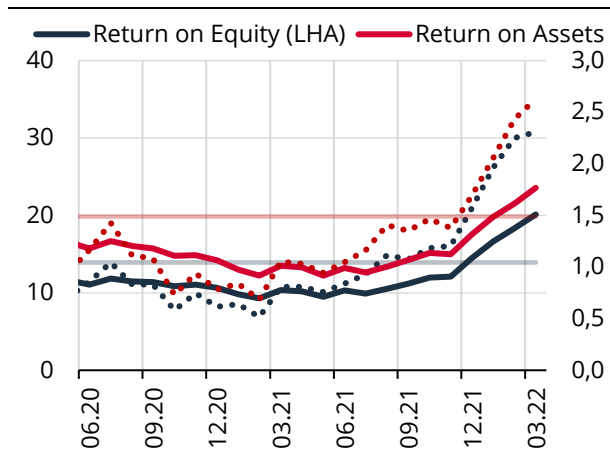
Source: CBRT Last Observation: 29.04.2022

## IV.4 Profitability and Capital Adequacy

The banking sector profitability started recover as of the second half of 2021, and its profitability performance grew stronger in the first quarter of 2022.

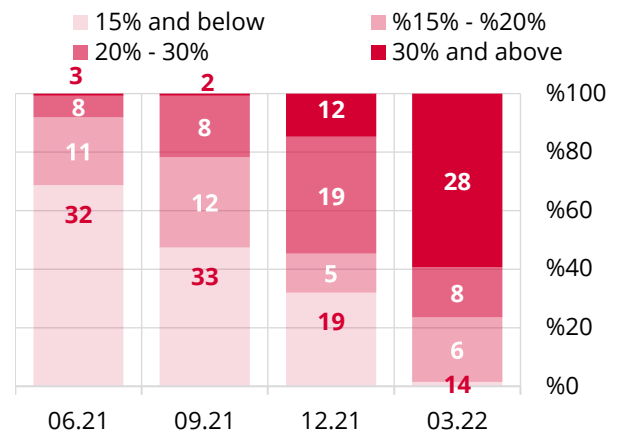
Having hovered within a range of 10-12% in the first half of 2021, the return on equity of the banking sector increased to 20.1% as of March 2022. The return on equity of the sector in the first quarter of 2022 indicates an annual return on equity above 30% (Chart IV.4.1). The high profitability performance became widespread across the sector. Of 56 banks operating in the sector, the quarterly returns on equity of 36 banks, which account for 76% of sector assets, exceeded 20% (Chart IV.4.2).

**Chart IV.4.1: Profitability Ratios (%)**



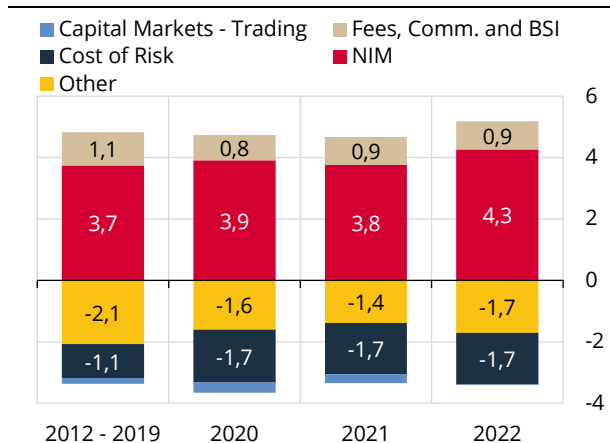
Source: CBRT Last Observation: 03.2022  
 Note: Dashed lines show the annualized 3-month average profitability. The light horizontal lines show the 2011 - 2019 averages of the profitability ratios.

**Chart IV.4.2: Distribution of Banks Based on Return on Equity (Quarterly-Annualized, % Share in Assets)**



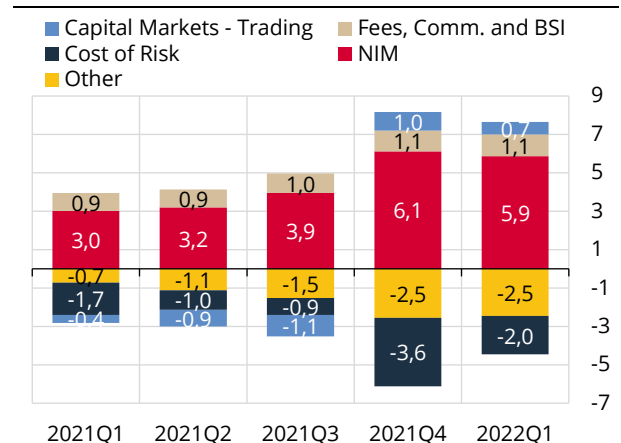
Source: CBRT  
 Note: Columns show the number of banks by return on equity group, the right axis shows their shares in sector assets.

**Chart IV.4.3: Components of Return on Assets (Annualized, % Points)**



Source: CBRT Last Observation: 03.22  
 Note: The sum of general and specific loan provisions for the cost of credit risk. Income items are 12-month cumulative sum, and the sum of assets is 12-month average values.

**Chart IV.4.4: Components of Return on Assets (Quarterly-Annualized, % Points)**



Source: CBRT Last Observation: 03.22  
 Note: The sum of general and specific loan provisions for the cost of credit risk. Income items are calculated as annualized 3-month-cumulative sums.



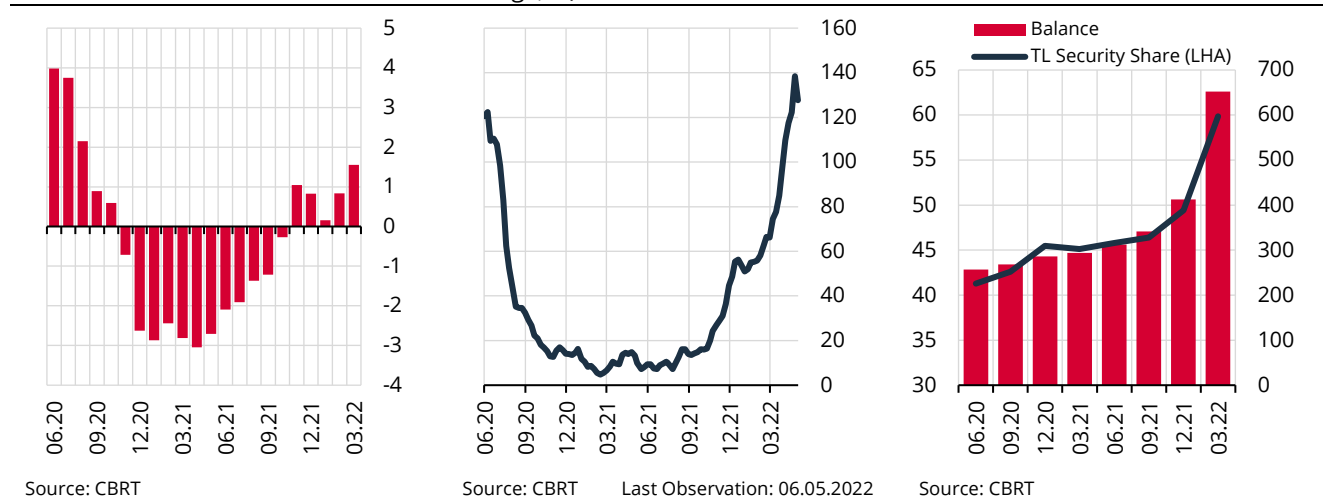
### Net interest income made the largest contribution to the increase in the sector's profitability.

While the contribution of net interest income to return on assets increased in 2022, the contribution of income from fees and commission remained flat (Chart IV.4.3). Actual quarterly figures reveal a more recent performance of profitability. Although the contribution of net interest income to the return on assets in the first quarter of the year was slightly below the previous quarter, it remained high and continued to contribute significantly to the return on assets. While the sector made further profits from capital market and foreign exchange transactions, the decrease in provision expenses compared to the previous quarter reduced the pressure of credit risk cost on return on assets (Chart IV.4.4).

### The increase in net interest income was mainly driven by the spread between the loan balance and deposit rates, the strengthened TL commercial loan growth and CPI-indexed securities.

The net interest margin has trended upwards due to the increase in loan rates since the fourth quarter of 2021. The interest spread between TL-denominated commercial loan and deposit balances has moved in favor of loans since April 2021, and the interest spread at -3 points in April 2021 edged up to +1.6 points as of March 2022 (Chart IV.4.5). The strong growth trend in TL commercial loans in 2022 expanded the effect of the interest spread on banks' net interest income (Chart IV.4.6). The ongoing increase in interest income on securities supported the NIM performance of the sector. The share of CPI-indexed securities in the TL securities portfolio, which was 41% in June 2020, increased steadily until March 2022 and reached 60% (Chart IV.4.7).

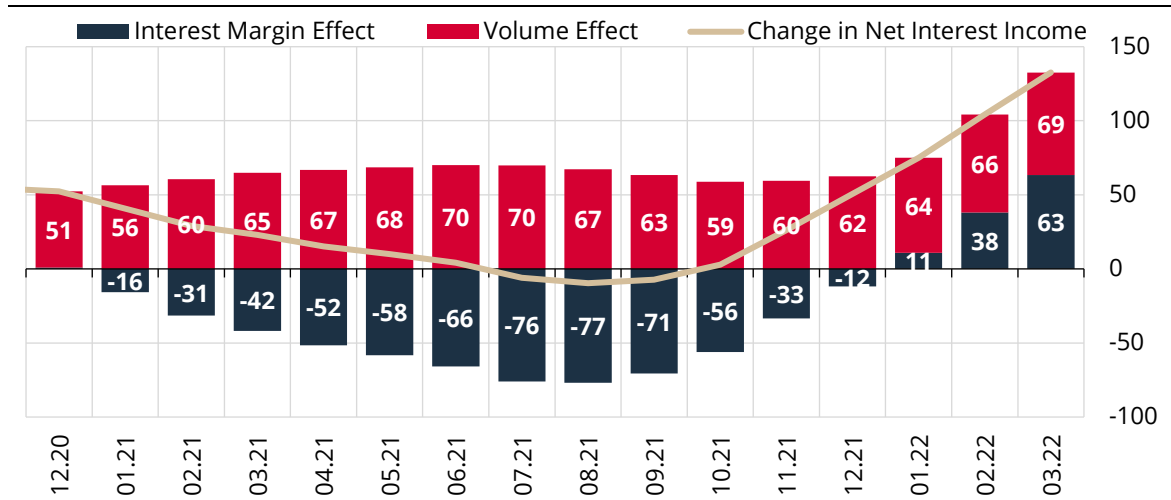
**Chart IV.4.5: TL Commercial Loan - Deposit Rate Spread (Stock, % Points)**    **Chart IV.4.6: TL Commercial Loan Growth (Annualized 13-Week Average, %)**    **Chart IV.4.7: CPI-Indexed Securities (TRY Billion, % Share)**



### The increase in net interest income was determined by the contribution from the margin moving into positive territory.

The positive contribution of the interest margin to the growth of interest-bearing assets (volume effect) is instrumental in the upward acceleration seen in net interest income since the last quarter of 2021. The average TL deposit interest rate, which was 17.4% in the first three quarters of 2021, declined to 16.5% in the following two quarters. Accordingly, the loan-deposit rate spread, which is called core margin, widened to levels above 5% in 2022, and this increase was positively reflected in net interest income. In the first quarter of 2022, loan growth driven by TL commercial loans also positively affected net interest incomes due to volume (Chart IV.4.8).

**Chart IV.4.8: Annual Change in Net Interest Income and Contributions** (Annualized, TRY Billion)



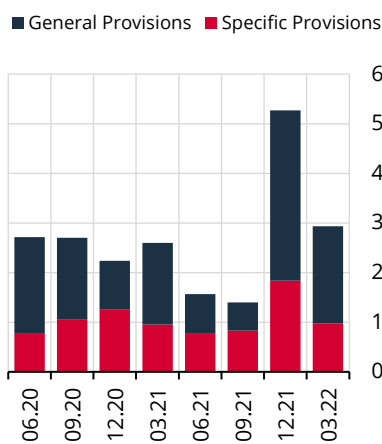
Source: CBRT

Note: The hypothetical effect that a change in the interest margin will bear through the interest-earning asset balance in the relevant period is defined as the interest margin effect, and the remainder of the change in the net interest income of the same period is defined as the volume effect.

**The decline seen in loan provision expenses due to subdued NPL additions is another factor that supports profitability performance.**

While the strong loan growth and exchange rate developments since the last quarter of 2021 led to an increase in general provision expenses, this increase became broad-based across the sector due also to the BRSA's termination of the forbearance in loan classification it had introduced during the pandemic. The cost of credit risk has decreased significantly over the last quarter of 2021 on account of the strong loan growth, as well as the decline in general and specific loan provisions in the first quarter of 2022 (Chart IV.4.9). The share of credit card-related fees and commissions, which have the largest share in banking services revenues, in this group has increased by 1 percentage point compared to the previous Report period (Chart IV.4.10). The effect of loan growth is also monitored through the performance of commission incomes. In the first quarter of 2022, fees and commissions received from loans exceeded the amount in the third quarter of 2021 by TRY 1.5 billion, which was mostly driven by TL-denominated cash loans and FX-denominated non-cash loan commissions (Chart IV.4.11).

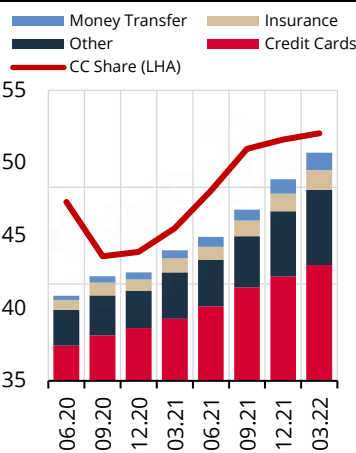
**Chart IV.4.9: Cost of Credit Risk** (Quarterly, Annualized, %)



Source: CBRT

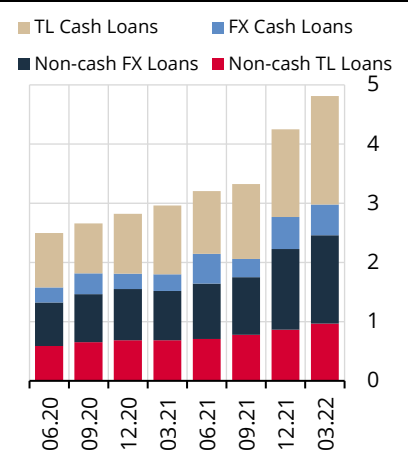
Note: Cost of risk is the ratio of quarterly provision expenses to gross loans.

**Chart IV.4.10: Banking Services Revenues** (Quarterly, TRY Billion, %)



Source: CBRT

**Chart IV.4.11: Fees and Commissions** (Quarterly, TRY Billion)



Source: CBRT

Last Observation: 03.2022

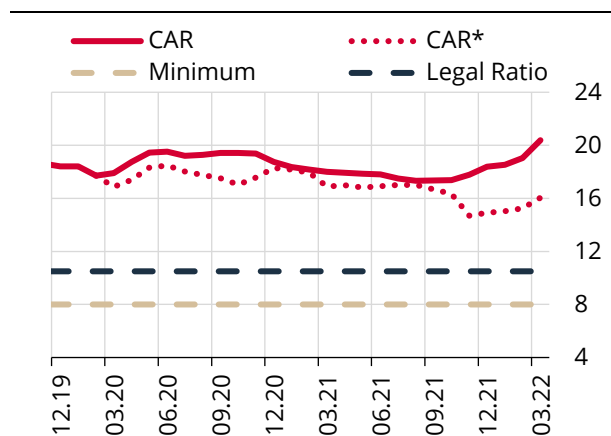
### The sector's capital adequacy ratios are above legal limits. Banks maintain a strong capital outlook against potential risks.

As of March 2022, the sector's CAR stood at 20.4%. The BRSA revised the forbearance measures it introduced in the calculation of CAR during the pandemic. Accordingly, on 21 December 2021, the regulation that prevented negative net valuation differences of securities registered at fair value through other comprehensive income portfolio from being factored into equity was re-enforced. Moreover, the BRSA decided to fix the average exchange rate used in risk-weighted asset calculations for credit risk instead of the current exchange rate, with the average exchange rate for 2021. On 28 April 2022, the BRSA decided that credit risk calculations would use end-2021 exchange rate values instead of the 2021 average rate. These measures taken by the BRSA alleviated the pressure of market movements on the CAR in the previous period. The effect of these flexibilities on capital ratios seems to have increased in line with financial market and exchange rate developments since the previous Report period. However, even when adjusted for the effects of these regulations, banks' capital ratios remain above legal limits (Chart IV.4.12, IV.4.13). In its announcement of 28 April 2022, the BRSA also increased the risk weight to 200% to be applied to TL commercial loans, excluding agricultural, SME, investment and export, public, financial sector loans and corporate credit cards.

### Banks' strong profitability performance supports the capital adequacy through the equity channel.

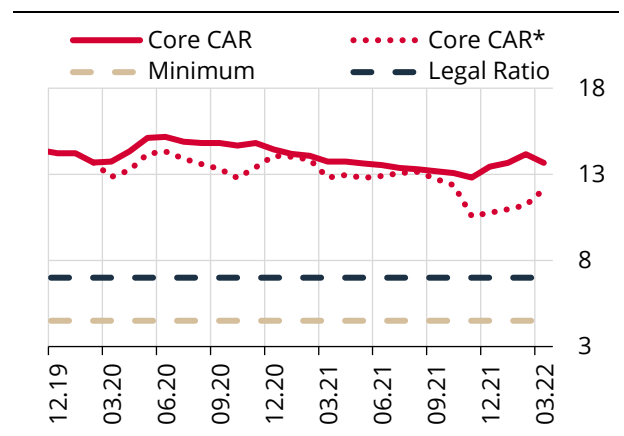
The banking sector's CAR has increased by approximately 300 bps since the last Report period. Compared to the previous Report period, the positive contribution of equities to the changes in CAR increased significantly on the back of the strong performance in profitability. Meanwhile, the negative effect of assets on capital adequacy increased compared to the previous period due to the credit impulse. The flexibilities that the BRSA introduced in CAR calculation continue to reflect positively on banks' capital adequacy compared to the previous period (Chart IV.4.14). The regulatory capital item that made the highest positive contribution to the changes in CAR in the September 2021 - March 2022 period was the profit of banks. Some banks increased their paid-in capital, which supported the CAR of the sector. While FX assets of banks increased due to exchange rate developments, the negative contribution to the CAR through this channel was compensated for to some extent by the valuation of FX subordinated debt instruments (Chart IV.4.15).

**Chart IV.4.12: Capital Adequacy Ratio (%)**



Sources: BRSA, CBRT Calculations Last Observation: 03.22

**Chart IV.4.13: Core Capital Adequacy Ratio (%)**

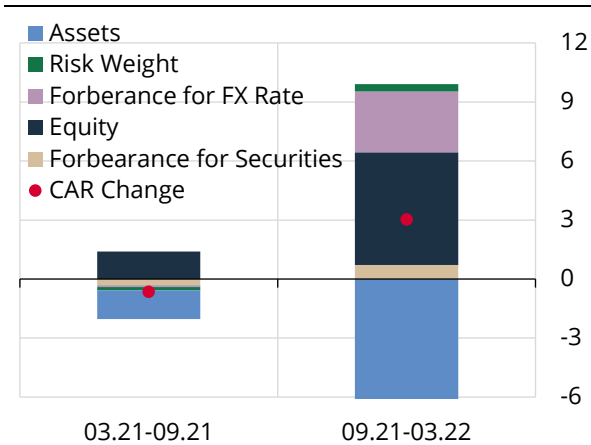


Sources: BRSA, CBRT Calculations Last Observation: 03.22

Note: \*Refers to CAR and core CAR adjusted for forbearance measures.

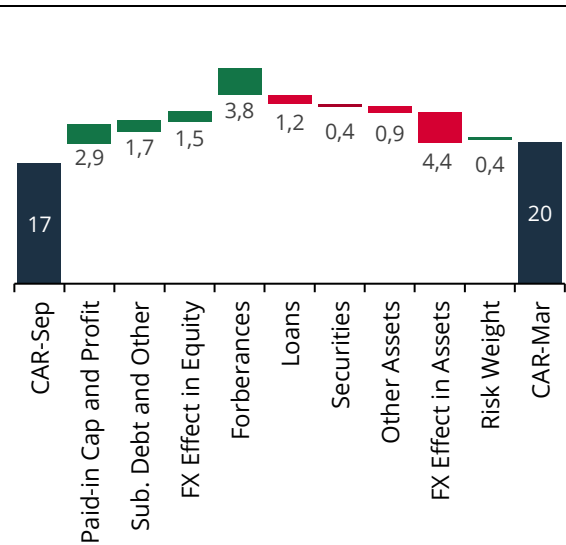
Minimum ratios are those applied to the overall sector as of March 2022 and are higher for systemically important banks. Legal ratios are the sum of bank-specific countercyclical capital buffer, capital conservation buffer and systemically important bank buffer ratio in addition to the minimum ratio as per Basel III regulations.

**Chart IV.4.14: Components of CAR Change (%)**



Sources: BRSA, CBRT Calculations

**Chart IV.4.15: Components of CAR Change in September 2021-March 2022 (%)**



Sources: BRSA, CBRT Calculations

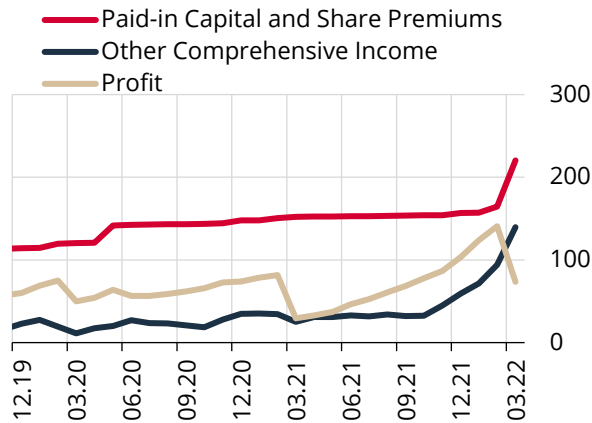
Note: Share premiums are added to the paid-in capital. Green represents an increase and red represents a decrease.

**Regulatory capital, one of the determinants of CAR increases, consists of items with high loss-absorbing capacity.**

Paid-in capital, reserve funds and current period’s profit along with the previous periods’ profits are the most important core capital items that make up 66% of the sector’s regulatory capital. General provisions<sup>1</sup> and subordinated debt instruments, which can be considered in additional Tier 1 capital or Tier 2 capital, are another important component of regulatory capital. The sector’s capital base has strengthened since the previous Report period thanks to the sector’s profitability, the capital support provided to state banks and the increase of paid-in capital by some banks. The valuation of CPI-indexed securities in the portfolio of “securities at fair value through other comprehensive income” has been mirrored in equities as profit and boosted the core capital. The banking general provisions that grew on the back of higher loan growth and exchange rate developments have supported equities (Chart IV.4.16 and Chart IV.4.17).

<sup>1</sup> Of general provisions, the portion up to 1.25% of the total risk-weighted amounts of the receivables using the standard approach and the portion up to 0.6% of the total of the risk-weighted amounts of the receivables using the internal rating-based approaches are considered in the supplementary capital calculation.

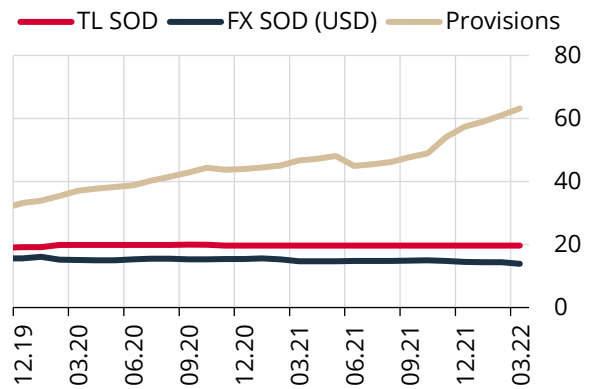
**Chart IV.4.16: Selected Core Capital Items**  
(TRY Billion)



Sources: BRSA, CBRT Last Observation: 03.22

Note: Profits factored in equity are netted with the portion of the net loss for the period plus losses of previous periods that cannot be covered by reserves, and losses reflected in equity in accordance with the TAS.

**Chart IV.4.17: Selected Additional Tier 1 and Tier 2 Items** (TRY Billion)

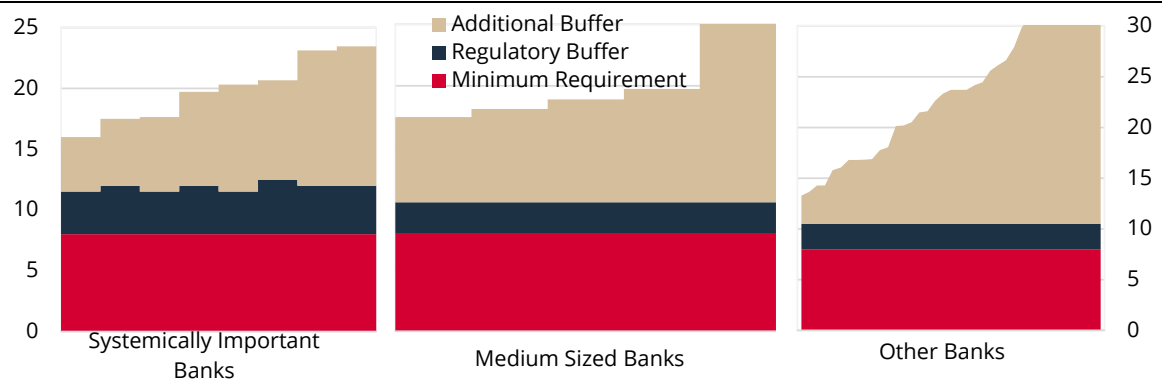


Sources: BRSA, CBRT Last Observation: 03.22

Note: SOD is the acronym for subordinated debt.

**Turkish banks have more capital buffers than the regulatory minimum.** High capital buffers are important in that banks can cover unexpected losses without breaching minimum ratios and they also help maintain the supply of credit to firms and households in times of stress. The CARs of both systemically important banks and other banks are above the regulatory minimum, which is an indication of the strong capital position of the banking sector. The capital support provided to state banks in 2022 contributed to boosting the sector's capital buffers (Chart IV.4.18).

**Chart IV.4.18: Sector's Regulatory and Additional Capital Buffers (%)**



Sources: BRSA, CBRT Last Observation: 03.22

Note: Banks with a CAR above 30% are excluded from the chart on the right.

## Abbreviations

AE	Advanced Economies	FOMC	Federal Open Market Committee
AED	United Arab Emirates Dirham	FSB	Financial Stability Board
AER	Adjusted for Exchange Rate	FX	Foreign Exchange
AES	Auto Enrollment System	FXNGP	Foreign Exchange Net General Position
AMC	Asset Management Company	G20	Group of Twenty
BAT	Banks Association of Turkey	GDS	Government Debt Securities
BCBS	Basel Committee on Banking Supervision	GDP	Gross Domestic Product
BIS	Bank for International Settlements	HMVKŞ	Undersecretariat of Treasury Asset Leasing Company
BIST	Borsa Istanbul	HPI	House Price Index
BITT	Banking and Insurance Transactions Tax	IBOR	Interbank Offered Rates
BLTS	Bank Loans Tendency Survey	IFS	International Financial Statistics
BP	Basis Point	IFRS	The International Financial Reporting Standards
BRSA	Banking Regulation and Supervision Agency	IIF	Institute of International Finance
BSI	Banking Service Income	IMF	International Monetary Fund
CAR	Capital Adequacy Ratio	IMM	Interbank Money Market
CBRT	Central Bank of the Republic of Turkey	IPI	Industrial Production Index
CC	Credit Card	ISO	Istanbul Chamber of Industry
CPI	Consumer Price Inflation	KAP	Public Disclosure Platform
DIB	Development and Investment Banks	KKM	FX-Protected Deposit
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization	KRW	South Korean Won
ECB	European Central Bank	LCR	Liquidity Coverage Ratio
EMEs	Emerging Market Economies	LDR	Loan-to-Deposit Ratio
EPFR	Emerging Portfolio Fund Research	LHA	Left-Hand Axis
EU	European Union	LIBOR	London Interbank Offered Rate
EURIBOR	Euro Interbank Offered Rate	MA	Moving Average
FAST	Instant and Continuous Transfer of Funds	MENA	Middle East and North Africa
FECR	Financial Expenses Coverage Ratio	MKK	Central Securities Depository of Turkey
Fed	Federal Reserve System	MTF	The Ministry of Treasury and Finance

MUSIAD	Independent Industrialists and Businessmen's Association	YEKDEM	Renewable Energy Resources Support Mechanism
NBFI	Non-Bank Financial Institutions	YUVAM	Deposit and Participation Scheme for Non-Resident Turkish Citizens
NEO	Net Errors and Omissions		
NIM	Net Interest Margin		
NPL	Non-Performing Loan		
ODD	Automotive Distributors Association		
OECD	Organisation for Economic Cooperation and Development		
PCC	Personal Credit Card		
PMC	Pension Monitoring Center		
PMI	Purchasing Managers Index		
PPI	Producer Price Index		
PPS	Private Pension System		
PUMAX	Purchasing Managers Index		
RA	Revenue Administration		
ROA	Return on Assets Ratio		
RoC	Rate of Cost		
ROM	Reserve Options Mechanism		
RoR	Rate of Return		
RR	Reserve Requirement		
RWA	Risk-Weighted Assets		
SOD	Subordinated Debt		
SME	Small and Medium-Sized Enterprises		
ST	Short-Term		
TFP	Total Factor Productivity		
TFRS	Turkish Financial Reporting Standards		
TLREF	TL Reference Interest Rate		
TOKI	Housing Development Administration		
TRY/TL	Turkish Lira		
TURKSTAT	Turkish Statistical Institute		
UK	United Kingdom		
USA	United States of America		
USD	United States Dollar		

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